

2/242

YEAR BOOK
OF THE
HEATHER
SOCIETY



1967

THE HEATHER SOCIETY



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Round and About with the President

After nearly five years since the first meeting in February, 1963, the Society's growth is steady and solid. The membership, which has become world-wide, now stands at 550.

During the last eight years I have called on heather nurseries in England, Scotland, Ireland and Wales. I appreciate the cordial reception given to me. Sales of heather have increased considerably, while other nurseries are now in the heath business. I have also called on a number of members in various parts of the country. It was a pleasure to meet them, to enjoy their company and see their gardens.

At the Harlow Car rally a member told me he cuts down his *carneas* to ground level, or almost ground level, after flowering. He loses some bloom in the following winter but next year they flower magnificently. Confirming this, Dr. Small, of Middlesbrough, writes: 'I cut my *carneas* experimentally for three years in selected groups to see what happened. I would recommend it now as routine after, say, each two or three years, to keep up active growth and limit sprawl.' Provided some foliage is left on the plant it can be cut right down—and this applies to all heaths and heathers. New growth will appear from near the base and the plant will make a fine bush but plants should not be cut *below* the foliage and Dr. Small tells me that doing this resulted in the death of an 'H. E. Beale.' Owing to a bad move a tall *arborea* (six feet) lost most of its leaves and looked unsightly. I sawed it off, leaving only a four-inch stump. It made a remarkable recovery. That was twelve years ago and in July last the tree was looking better than ever. Whilst I don't advise readers to be so drastic, no harm is done in cutting well back in some plants to see how new growth responds. This applies particularly to 'H. E. Beale.'

Low hedges are useful to break up parts of the garden, dividing one section from another, and none is better than *vagans*, which can be trimmed in April to keep it neat and tidy. In 1959 I recommended this type of hedge to a lady who lives near Cardiff, as I have done to others. In May this year she writes to say that the *vagans* hedge is now flourishing and it is . . . "just what I needed and most of my heathers are wonderful and one of the exhibits of the village". Another hedge of superb quality and of considerable length is *vagans* 'Mrs. D. F. Maxwell' which I saw in Dr. Armsden's garden at Llanfaglan, Caerns. If lime is in the soil the winter hybrid 'Darleyensis' makes a good low hedge.

The Chairman's Notes

The Editor tells me that she can find space for a few comments from the Chairman and I am glad to take this opportunity.

I should like to express the thanks and appreciation which many of us feel for the work being done by everyone connected with the Harlow Car project (see Mr. Ardron's Report), and for Mr. Ardron's efforts in getting members in the North to come together for their own and the public benefit. From what I hear of the collection of heathers being assembled at Harlow Car, the display should be of the greatest interest, both in the showing of so many different kinds and in bringing home to the public what a remarkable variety there is in heathers. I am sure that any member able to offer those plants still wanted, as indicated on the separate list included with the Year Book, will be glad to make their contribution to this project.

It is much to be hoped that some enterprising leader may be found in other parts of the country to arrange visits and meetings of our members who are remote from London and such centres as Wisley, Windsor Park and Kew Gardens.

To attract the attention of those who know nothing of heathers—beyond what they see on the moors—I think there is no better lure than Mr. Sparkes' foliage varieties.

It is interesting to note that heathers were being grown by gardeners nearly 200 years ago. Re-reading Jane Austen's 'Mansfield Park' recently, I found that when the party from Mansfield Park visited Mr. Rushworth at Sotherton, Mrs. Norris was given a 'beautiful little heath' by the head gardener, which he had earlier described as a 'very curious specimen of heath.'

When reading 'The Work of William Morris' (Paul Thompson) I learned that the dyes used in Europe from the sixteenth to eighteenth century had consisted principally of blue indigo, a vegetable dye; red kermes, an insect dye, and red madder, a vegetable dye; weld yellow from wild mignonette, and a variety of other vegetable yellows from poplar, willow, birch and heather.

The Secretary's and Treasurer's Report

The institution of the bi-annual Bulletins has given officers of the Society much closer contact with members. Another service which began quite successfully in 1964 but has been allowed to drop because so few members subsequently availed themselves of it is the Enquiry Letter Form. With this 1967 Year Book I am enclosing a copy for all members who have joined in 1966 and 1967. If others would like one, please ask. We shall do our best to help. As I do not pose as an 'expert' I shall send the questions on to others with greater knowledge and experience.

This year the R.H.S. at our request included special classes for heaths at a spring Fortnightly Show and for heaths and heathers in midsummer. These brought four successes to Mrs. A. H. Bowerman, two to Mrs. P. Harper and one each to Mrs. C. I. MacLeod and Mr. B. G. London. Next year we hope for many more entrants. At the second show on August 8th some splendid Cape Heaths

(not for competition) were displayed by Mrs. Ronald Gray and Miss I. M. N. Ryan to illustrate the afternoon lecture given by Mr. E. G. H. Oliver whose new book is advertised in this Year Book. At these competitions and the Autumn Display which for the third time won us a Silver Flora Medal, we noted that people show an increasing interest in heathers. 166 new members have joined since the last year book lists were made up and forty have dropped out.

It may not be inopportune to tell you here about subscriptions as some confusion seems to be felt among our members. Our financial year ends on March 31st. When I send out the A.G.M. notices and Balance Sheets, I remind those members whose subscriptions are due. Many respond at once. Receipts for Bankers' Orders and cheques are *not* sent unless especially asked for as your bank statements should tell you that these have been cleared. I do send them for postal orders and cash which are difficult or impossible to trace. No further reminder is sent out until September when members have the choice of paying, giving notice of resignation or dropping out. The membership lists are then drawn up for the Year Book. We began by publishing in December and the Year Books for each year last into October of the following year. As many Societies do, we allow generous "grace" months: for new members subscriptions paid between October 31st and March 31st give up to a year and five months membership and a guarantee of two Year Books. We are frequently asked for past Year Books and though we do not expect that any keen members will wish to throw out back copies we should gratefully accept them and even pay half price (5s. 6d.) each for them.

Although a full report of the Northern and Midland groups is appended, mention must be made by me of the affiliation with mutual benefit now existing between our Society and the Northern Horticultural Society with its headquarters at Harlow Car, Harrogate. Visits to both public and private gardens continue to be among our most popular activities.

C. I. MacLeod

Editor's Notes

I had hoped to get the Year Book printed earlier this year but here we are, 53 shopping days to Christmas, and the drafts not even with the printer yet. Perhaps next year all contributions really WILL be in by August 31st deadline.

This is probably my last year as Editor. My husband is now working in the U.S.A. and I expect to join him in the Spring. I have enjoyed my "term of office" and shall be sad to leave England, my heather garden and my friends here. On the brighter side, perhaps I shall have the chance to meet some of the American members at present just names and addresses in the Year Book. Can anyone give me encouraging news about my likely success in growing heathers in New London, Connecticut?

We had hoped to include details of heather gardens worth visiting but the list is not yet sufficiently comprehensive. Please share any knowledge you have of heather gardens which can be visited and perhaps the list can appear in the next Bulletin.

I have been asked to include an article on the pronunciation of specific names. Instead I recommend a little book called "Plant Names Simplified" (A. T. Johnson and H. A. Smith), well worth its 7s. 6d. No book review page this year but after reading Mr. Geoffrey Smith's article, I am sure you would like to know that his book "Easy Plants for Difficult Places" has recently been published.

I have tried to get an article on photographing heathers but no-one feels qualified to write it. However, our President has kindly offered to comment on any member's photographs sent to him (please include an s.a.e. for return). Mr. Chapple takes most of the photographs to illustrate his books and articles so is obviously well qualified to advise.

Messrs. Ingamells Page, Florists and Exporters of 41 Wellington Street, London E.C.2. have a demand for heather (other than tree heath with which they are already supplied) as cut bloom, particularly in weeks

just prior to Easter and from August until early October. Would any member able to supply, or interested in the possibility of growing heather for them, get in touch with Messrs. Ingamells Page direct.

Nomenclature remains a problem to me. A Sub-Committee headed by Mr. McClintock are working hard to sort things out and a number of changes are being made.

These will be reported upon in due course. For this year the most important change to be noted is the lumping of all *carnea x hibernica (mediterranea)* varieties under the name *Erica x darleyensis* (thus we have *Erica x darleyensis* 'Silberschmelze', *Erica x darleyensis* 'Arthur Johnson' etc.,). The variety 'Darleyensis' (probably the best known of all heathers) will eventually have a new name but for the moment I have referred to it merely as *Erica* 'Darleyensis', which I am sure is clear to everyone. The other major problem is the naming of South African species. To omit all reference to these until such time as the names are checked would be a pity—thus they appear, in most cases, as written by the authors but some may well be incorrect.

The Harlow Car Project at Harrogate, Yorkshire

JOHN P. ARDRON, SHEFFIELD

Back in 1962 I made a tentative effort to start a Heather Group within the Northern Horticultural Society but only Mr. Bickerstaff responded. The year following saw the birth of The Heather Society and the next link was in the N.H.S. securing more land upon which to extend their existing gardens.

This all led to a conversation with Mr. Geoffrey Smith (Superintendent of the Garden) who had already established a Heather section of about 80 varieties. The result of this talk was a formal proposal submitted

to Mr. A. Sigston Thompson (Hon. Director of Gardens), who received the suggestion for a major Heather Garden with enthusiasm and this was endorsed by the Garden Committee in November 1966.

Early in 1967, the proposed site was inspected and arrangements made for members of the Heather Society from the North and Midlands to meet at Harlow Car on April 30th, 1967. This meeting was a great success as reported in Bulletin No. 2. Indeed, the response from our members was remarkable; the distances travelled in order to get together was an expression of enthusiasm quite beyond our expectation. And the number of plants and cuttings donated by members, plus a firm demand for another meeting on July 13th, all indicated how solidly the scheme was being supported.

Meanwhile, chain letters listing the varieties required were circulating by post from member to member (amongst those who had responded to the April 30th invitation); each in turn marking off the list those plants-cuttings which would be contributed. It had seemed a long shot to ask members to take this trouble but the response was magnificent and by July the Harlow Stock list had been brought up to the 250 mark—varieties of Heather for the Harlow propagation nursery. So the long term plan for an outstanding collection of Heathers is no longer a pipe dream but bids fair to take shape within the next two years. The list of varieties still required has now been reduced to manageable proportions and will be circulated to other supporters.

Miss G. Waterer has sent cuttings from Penzance and Mrs. Eileen Porter has sent plants and cuttings from her late husband's collection at Belfast. From Chatham, Mass., U.S.A. Mr. Harold W. Copeland has sent cuttings. We cordially invite growers, both amateur and professional to volunteer for inclusion in the group to whom the list of outstanding required varieties will be sent. The ultimate aim is to have growing in one place all the varieties we can find, to give intimate comparison of one small group of plants with another of near form so that their garden value can be judged adequately. In short,

a trial ground on a comprehensive scale to which new introductions can be sent for evaluation.

We are fortunate in that the Harlow Car Garden is on an open site and there is space for such an ambitious development. In addition, the garden is tended by a loyal staff, led by Mr. Geoffrey Smith who loves his Heathers and is, of course, one of our members. The Heather Society has given full support, from Sir John down to some of the newest members and Mr. Chapple has been party to all the proceedings from an early stage. And our Society has become affiliated to the Northern Horticultural Society, whose Garden has made its mark on the horticultural world.

The meeting on July 9th, was not the end of our gatherings. We wound up the Summer by a visit to Ness (Wirrall) on September 24th. On that day, in spite of the mist and rain (which surely restricted attendance to all but the more hardy) a party of twenty-five managed to inspect the magnificent display of Heathers grown there; a pageant of colour in defiance of the weather, emphasising the true garden value of our favourite subjects. The lively and constructive suggestions which arose in discussions will be the subject of future circulars.

Apart from our aim to create the ultimate in Heather Gardens, we feel that a more immediate object has been attained, namely, that the far flung membership in the North and Midlands has been consolidated in a closer fraternity of common interest. It has become clear that the personal contacts made, with the resulting exchange of visits to one another's gardens and the general air of hospitality enjoyed, has put life into what was merely a list of names recorded in our membership.

Meanwhile, we are in no way exclusive and if any lone member within or beyond our geography would like to join our gatherings, please do not hesitate to ask to be advised of future events. Ultimately (and this is a suggestion from our President) we could aim for a combined gathering of members of all Groups at a more central venue. Our young Society is now well enough established for such a get-together to demonstrate that

the value of membership is in inverse ratio to the counting of members. The pleasure I have had from it already exceeds the value of what I have derived from supporting much larger organizations.

As an interim measure, before the organization of a nation-wide gathering, we confidently recommend other Groups to arrange informal meetings in the Spring of the New Year, such as we have found to be so acceptable. You will be surprised how far heather members will travel to exchange gossip and how many friendships will burgeon in the process.

Heaths and Heathers Down Under

MICHAEL AND CAROL FORSTER, SYDNEY, AUSTRALIA

Here in Australia, to the best of our knowledge, there is no native member of the heather family; although we do have several other members of the Ericaceae commonly referred to locally as 'heaths' some of which at first glance closely resemble the Cape varieties, e.g. *Astroloma ciliata*. However, at least two species, *arborea* and *E. lusitanica* have become acclimatised and may be seen growing in quantity in some parts of the Dandenong Mountains, near Melbourne, Victoria.

In Sydney, further to the north, our climate ranges from a mild minimum of 40-50°F in winter to 75-85°F, with the occasional 'above the century', in summer and our average rainfall is about 45 inches. Despite this similarity with the South African *Erica* region, heaths, with the notable exception of *E. canaliculata*, are not very well known here except perhaps to a few nurserymen, who claim they have found them unreliable, dying-out for no apparent reason. One wonders whether enough

attention has been given to their particular requirements, or whether they have just been expected to survive with the same treatment meted out to the other shrubs.

Peculiarly, the hardy heaths do not seem to have been pursued to any extent and although quite a few varieties can be obtained by very diligent searching, (we have 31 hardy heaths and 24 temperate heaths) only one nursery in the whole of Australia lists anything like a collection of them (27 in all) and at rather handsome prices.

We have therefore turned to our own propagation and have had fairly good success with cuttings of the hardy heaths (bottom heat 65°F, closed frame) but have had only limited success with South African species. However, we are trying to overcome this by starting from seed and now have seedlings of eight species, ranging in height from $\frac{1}{4}$ -3 inches, and with fifteen more species to be sown this spring look forward to a considerable increase in this area over the next year or two.

Whilst our experience of growth 'in the garden' is to date somewhat limited we have found that the *Callunas* and *Ericas*, both temperate and hardy, are doing well, whilst the *Daboecias*, although growing, do not seem quite as vigorous. In our opinion there is no doubt that, here at least, with the South African species regular pinching back is a must if a well branched, stocky plant is to be obtained. We are also aware that at least one or two nurserymen in Victoria have small areas of Cape Heaths; one obtaining many small plants for sale from self-sown seedlings gathered around his collection, which includes *E. mammosa*, *E. blenna* and *E. Wilmoreana*; the other growing limited quantities of *E. Wilmoreana* for the cut flower trade. (This is a garden hybrid of French origin, produced about fifty years ago—Ref. Dr. Ronald Gray.)

FERTILISERS

One frequently reads that one should never use fertilisers on heathers. For some time we had wondered how soundly this was based and had decided to conduct a small trial into this aspect, when we received our copy of

the 1966 Year Book. Spotting the article by Brigadier E. T. Weigall we immediately got under way, initially with three varieties.

We selected nine matched small plants of *E. hibernica* (*mediterranea*) and six of *E. 'Stumpy'*, none of which was more than 3ins. high. These were potted in 4 inch pots in a 50/50 mix of peat and sand, then divided into three groups, 'Control', 'Atlas', and 'Orchidol'. The 'Control' group received nothing but water throughout the trial, whilst the 'Atlas' group were watered fortnightly from February 19th, 1967, to May 4th, 1967, with Atlas Fish Emulsion (5:1:1), an American 100 per cent. organic non-burning fertiliser, using two teaspoons to the gallon. The 'Orchidol' group received Orchidol (19:28:14), a water soluble fertiliser formulated for maximum growth of Cymbidiums (!), using one level teaspoon-gallon, also fortnightly.

On March 22nd. 1967, as no plants had shown any ill effects and in fact were already responding by increased growth and darker colour, plants of *E. 'melanthera' Improved* were added. At the same time a group approximating the originals were included using a totally different fertiliser Magamp (8:40:0), of which one level teaspoon was incorporated into the soil at the time of potting.

In late April *Calluna 'Alba Plena'* and *Daboecia 'Porters Variety'* were also added and, although well behind the originals, similar effects appear to be under way.

The overall results, to our mind, have been quite outstanding. Although we only fertilised for three months, stopping in May with the onset of winter, the growth put on by the fertilised plants when compared with the controls has been extremely marked. Table 1 and the accompanying photograph graphically present these results.

At present there is little to choose between the three fertilisers although we have the feeling that perhaps the Orchidol group is best. However, it should not be overlooked that although the Magamp group started one month later, the plants caught up and, additionally, it has a very distinct advantage of once a year application.

We hope to extend this pilot trial, both in varieties and in time and thus may be able to report more extensively at a later date.

GROWTH REGULATORS

Yet another fascinating aspect has recently captured our interest; namely, the use of growth regulating chemicals to improve the quality and shorten the growing period. A German article reported experiences with a new American substance CYCOCEL (C.C.C.). It was used on Erica hybrid plants in concentrations ranging from 1.0—4.0 per cent. Bud set improved with increasing concentrations, notably in the 3-4 per cent. range. The number of buds per plant also increased with concentration, ranging from 20 on untreated plants to 208 on plants treated with the 4 per cent. solution. Plant height decreased from 23.3 cm. in untreated plants to 18.9 cm. in those treated with the strongest concentration, whilst the normal growing period of 30 months was shortened to twelve months.

Being fortunate enough to have some supplies of C.C.C. we intend to investigate its effects on other members of the heather family and look forward with interest to the results.

TABLE 1

NAME, DATE ENTERED INTO TRIAL, AND FINAL HEIGHT—

CONTROL	ATLAS	ORCHIDOL	MAGAMP
Height, Span and Colour	Height, Span and Colour	Height, Span and Colour	Height, Span and Colour
29.7.67	29.7.67	29.7.67	29.7.67
E. hibernica (mediterranea)	19.2.67	3-ins.	
5-ins., 3-ins. yellow-green, sparse	7-ins., 7-ins. dark green very bushy	6-ins., 6-ins. dark green bushy	8-ins., 7-ins. dark green bushy
E. 'Stumpy'	19.2.67	3-ins.	
4½-ins., 1½-ins. yellow-green tiny	6½-ins., 3-ins. dark green bushy	6-ins. 3-ins. dark green bushy	6½-ins., 3-ins. dark green bushy

E. 'melanthera' 'Improved' 22.3.67 7-ins., 6-ins., 6-ins., 6-ins.			
10-in.	12-ins.	13-ins.	10½-ins.
1½-in. column	3-ins. column	3-ins. column	2½-ins. column
yellow-green	much branched	much branched	branched
	dark green	dark green	dark green

APPENDIX

(1) ATLAS FISH EMULSION: (N.P.K.) 5.1.1.

Analysis: Total Nitrogen (N)	5. 0%
0.5% Ammoniacal Nitrogen	
0.0% Nitrate Nitrogen	
4.5% Other Water-soluble Nitrogen	
Phosphoric Acid (P_2O_5)	1. 0%
Potash (K_2O)	1. 0%

(2) ORCHIDOL: (N.P.K.) 19.28.14.

Analysis: Nitrogen as di-ammonium phosphate	11. 00%
Nitrogen as ammonium nitrate	4. 00%
Nitrogen as potassium nitrate	4. 00%
Phosphoric acid (P_2O_5) as di-ammonium phosphate	28. 00%
Potash (K_2O) as potassium nitrate	14. 00%
Iron as iron chelate	600 p.p.m.

(3) MAGAMP: (N.P.K.) 8.40.0.

Granulated Magnesium ammonium phosphate with controlled release—non-burning—non-leaching.

(4) "Improving the quality and shortening the growing period of Erica hybrids with C.C.C."—Dtsche Gartenb., 1966, 13: 205-7

LIST OF VARIETIES CURRENTLY BEING GROWN

HARDY HEATHS

- E. carnea* 'Springwood White', 'Springwood Pink', 'Startler', 'Aurea'
E. X darleyensis 'Norman R. Webster', 'George Rendall', 'Arthur Johnson'
E. lusitanica
E. hibernica (*mediterranea*)
E. multiflora 'Daviesi'
E. scoparia 'Minima'
E. 'Stumpy' (no further name known here)
E. mackaiana 'Lawsoniana'
E. Tetralix 'Alba Mollis'
E. vagans 'Mrs. D. F. Maxwell', 'Kevernensis'
Daboecia cantabrica 'Alba', 'Atropurpurea', 'Porters Variety'
Daboecia azorica
Calluna vulgaris 'Alba Plena', 'County Wicklow', 'Cuprea', 'Foxii Nana', H. E. Beale', 'Hirsuta Compacta', 'J. H. Hamilton', 'Minima'

SOUTH AFRICAN SPECIES

- E. aurora*, *E. autumnalis*, *E. baccans*, *E. blenna*,
E. Cavendishiana, *E. cerinthoides*, *E. cruenta*, *E. hybrida*,
cultivar), *E. mammosa*, *E. canaliculata*, *E. melanthera*
 'Rcsy Glow', *E. melanthera* 'Improved' *E. oantesii* (Winter Gem), *E. pinea*, *E. regia* and *E. regia* 'Special', *E. Webbleyana*, *E. Wilmoreana* and *E. 'Winter Glow'*
 (species not yet identified) *E. ventricosa*, *E. verticoides*.

VARIETIES FROM SEED

Cape Heaths

- E. glandulosa*, *E. mammosa*, *E. oatesii* (Winter Gem),
E. patersonia, *E. perspicua*, *E. peziza*, *E. sessiliflora*
E. taxifolia.

Temperate Heaths

- E. cinerea*, *E. vagans*, *E. vagans* 'Lyonesse'

HEATHER—IN PARTS

G. D. SMITH, HARLOW CAR, HARROGATE

Having lived most of my life on the edge of the moors, it is not difficult to understand the feelings invoked in those who see them for the first time during August with the heather in full bloom. The softly rounded contours of the hills stretching for miles, on every side a carpet of purple, broken here and there with a patch of bracken or outcrop of grey rock, the picture changing with each passing cloud, the colours deepening in the hollows or light with cotton grass and sphagnum in the moister patches, and over the whole landscape a feeling of quiet which can only be appreciated in the high places and broad landscapes.

Through every season the moors are beautiful. In winter the pattern is all dark green, copper, red-gold, with a blue haze to heighten the sense of remoteness. Spring comes late, heralded in by the living geometry of plover and curlew calling over the heather. The romance of the moor lies in its vast spaces, in the flora and fauna which all contribute to a unique character.

I know smaller landscapes, corners hidden away in valleys where two or three Scotch pine, a grove of birch or, in one case, a hawthorn, make the picture even lovelier. These are not alien characters which introduce a discord but are symbiotic with the heather and bracken.

Unfortunately, stimulated by the beauty of the moorland, many try to condense a picture of 50 square miles into a suburban garden of 50 square yards, in the white heat of creative art but with too little thought. The result is usually disappointing—a bedding scheme of heathers which would look far more in character composed with antirrhinums, lobelia and salvia.

Heathers in their vast variety can be utilised to make a garden rich in colour of foliage contrast and flower but should never be asked to make the sole contribution.

Just as the rose and rhododendron, though lovely in themselves, gain in beauty through association with other plants of similar personality, so is a heather garden improved by a companion planting of dwarf conifers, birch and maple.

Though the heathers may be the prima donna, if the supporting chorus is reading the music upside down then the result is complete discord, which can only be resolved by selling house, garden and furniture. The shrubs chosen to add height and contrasting shape will be influenced by the size of the garden. A man with 4 acres to fill can indulge himself with pine, birch, maple, *Stewartia* to the full extent his pocket will allow. At the other extreme, a garden 6 feet by 8 feet can still be a perfect miniature with the exercise of a little restraint. *Calluna* 'Foxii Nana' or 'Humpty Dumpty' look just as effective planted round a *Cedrus libanii brevifolia* as *Calluna* 'H. E. Beale' in drifts around a Douglas pine.

I must admit to having achieved several discords in the making of heather gardens but in the process have discovered a much richer variety of plants, which might have been neglected had only the obvious genera been considered. *Embothrium* looks an even more brilliant scarlet if a good dense thicket of *Erica arborea* 'Alpina' is used as ground cover. Flowering as they do from June to September, the *Potentilla* bring a pleasant yellow or white undertone to the overall pinks and purples around them. Conifers, lovely in any context, have both shape and foliage to grow and contrast over all the year with a predominantly ericaceous landscape.

Trillium grandiflorum, *Scilla hispanica*, *Galanthus*, *Leucojum*, in addition to the generally planted *Narcissus*, will bring seasonal interest, their dying foliage hidden amongst that of the heathers. These are the least of my indiscretions—*Iris siberica*, Gentians, some species *Paeonia*, *Gillenia trifoliata* have all at some time been tried, admired or rejected over my twenty odd years of gardening. No doubt the purist will condemn me for a dilettante but experiment adds interest and, if successful, increased beauty to the garden.

HAPPY HEATHERS

PHYLLIS HALL, FELBRIDGE, SUSSEX.

Soil conditions, when we moved to East Sussex some years ago, were just about the worst possible. Our new "garden" comprised two acres, mostly scrubland, with, in some parts, barely a two-inch covering of poor acid soil over a waterlogged subsoil known locally as "chavock". This can only be described as solid sand, brick hard when dry. Across and surrounding the garden were ditches, which we understand were dug by German prisoners during the 1914-18 war, and obviously had not been attended to for many years.

The problem of getting the water away quickly had to be tackled; this we gradually did by breaking up the chavock on the proposed border sites (I well remember the young member of the family wielding a pickaxe!) incorporating leaves, rough compost, in fact anything we could obtain from the land to keep the subsoil from returning to its original solid condition. Agricultural drains were then laid to lead the surplus water off into the ditches, which had to be cleared out, widened and deepened.

Potatoes and other cleaning crops were grown for several seasons, every year top dressing the soil with compost, leaf mould, and in the autumn even fresh leaves, which all miraculously seemed to disappear by the following spring. Everything possible was composted and every winter we made it a practice to rake the leaves, mostly oak, birch and sweet chestnut, from a small piece of woodland at the end of the garden into a deep ditch. After leaving these for a couple of years or so we were able, and still are able, to cart truck loads of this wonderful natural product for use as a top dressing. We had no occasion to use "artificials" but do use bone meal, dried blood, a small amount of lime, peat and bonfire ash.

By now the borders were building up to a depth of soil, and planting began. We had plenty of failures,

mostly shrubs, but were learning, through trial and error, which plants would or would not thrive.

This is heather country and we have masses growing on banks and other parts of the garden and some years ago I bought from our local nurseryman "one of each" of all cultivated heathers he had to offer and dotted them around amongst all the other treasures. My knowledge of heathers was nil and their names meant nothing to me but it soon became obvious that our conditions suited them admirably. We were delighted with the results obtained from those first plantings: I had no idea heathers were so lovely and it was entirely through hearing an interesting talk on heathers on the radio a few years ago (the speaker mentioned the Heather Society) that I was encouraged to become a member and so learn more about them.

I have, thanks to Mrs. MacLeod's kind help and recommended book reading, identified quite a few heathers and now know that it is 'Mrs. D. F. Maxwell', 'Searlei' and *Daboecia* that overhang a north facing sandstone wall, and Ericas 'Darleyensis' and 'Silberschmelze' flourishing, rightly or wrongly, in two tubs. 'King George' doesn't seem to like our conditions and we lost an 'H. E. Beale' but have since been more successful with two new ones with a different aspect. I still have some with names, as yet, unknown to me, and must confess that I find the various catalogues rather confusing.

We still have drainage problems (what a marvellous invention rubber boots are) and have long since learned to live with a moss lawn. We have little trouble from weeds and using the hoe is the gentlest of jobs, but moss is a nuisance.

Unfortunately, owing to ill health, we have had to allow part of the garden, including the whole of the kitchen garden, about half an acre, which had received the same cultivation already mentioned, to fall down to herbage. This was sad to have to do but it is some consolation to know that mowings left on the surface still play some part in soil building, and perhaps, one day, may nurture lovely drifts of Happy Heathers!

A Heather Garden on Chalk

ARNOLD J. STOW, FLACKWELL HEATH, BUCKS

Another bulletin, yet another plea from the editor for articles, how guilty I feel. I know what it's like to be an editor with insufficient material to edit. I ran a youth club magazine once and ended up by writing in the "Letters to the Editor" column to fill up space.

But what to write about, I've asked myself many times, surely our President, Mr. Chapple, not forgetting Messrs. Maxwell and Patrick, have covered every aspect of growing our lovely heathers in their admirable books which are to me, and I'm sure to many other members, constant guides and companions.

I think, and think again, and an idea is born. These writers mention the pitfalls and problems of growing heathers on alkaline soils, but have they ever been faced with actually planning and planting a heather garden on the chalk which is so common in this area of Buckinghamshire. I would like to learn from other members who have the same cultural conditions to overcome, but to start the ball rolling I will outline my own highly rewarding three years of growing heathers.

I played safe the first year, obeyed the rules and planted lime tolerant cultivars and was amazed at the wealth of bloom on *E. carnea* 'King George,' the two 'Springwoods' and (surely the most vivid winter cultivar of all) 'Vivellii'. The hybrids 'George Rendall' and 'Silberschmelze' completed my collection at that time and kept up the flowering sequence till the end of April. The plants continued to make very satisfactory progress despite a soil lacking in humus but not stones, yet I was a little disappointed as friends and relations were now venturing forth from the comfort of their firesides to visit our garden, there to witness green lawns and green heather, broken up only by two *Thuya occidentalis* 'Rheingold', but no blossom.

I was loath at the time to venture into the tree heath world in order to prolong flowering into May, as, being extremely exposed, I feared for the brittle growth of

these plants, so I bought the white Portuguese Broom for colour the following May and this is a magnificent sight when in bloom. That first summer I obtained colour in the heather border by interplanting with yellow *Antirrhinums* and found this a most satisfactory stop-gap which I recommend to any new convert to heather growing.

Autumn came, but not before visits had been paid to Kew and Wisley to see the summer flowering cultivars. I was restless and knew I would not be satisfied until I had tried one or two of them. Out came the catalogues once again, and after much frantic thumbing through the pages I decided that *E. vagans* would be the safest to try initially. I chose 'Mrs. D. F. Maxwell' and 'Kevernensis Alba' to start with, together with 'Diana Hornbrook', 'St. Keverne' and 'Lyonesse'. Results have been encouraging. The plants have never reached a foot in height but the foliage has remained a fresh green with no apparent indication of chlorosis, and the blooms have amply justified the time and expense of using copious quantities of peat and Sequestrene. I was aware when planting these summer cultivars that they would be liable to produce stunted growth but as they look so well I am satisfied, and after all the vogue at the moment is to dwarf all types of plant, so I am in fashion.

Despite the colour that the *carneas* and *vagans* have given, I eventually succumbed to the advertisements of the heather nurseries for the foliage varieties, so a raised island bed was made in the now fast disappearing lawn. I might mention at this point that what attracted me to heather in the first place was its labour-saving qualities. Now I spend a lot of time planning the situation of the next variety.

The foliage varieties of *Calluna* 'Robert Chapman' and 'Gold Haze', interplanted with cuttings taken from common heather, have done well to date, although it is too early to form a definite opinion as they are all newcomers to the garden. I chose 'Robert Chapman' because Clay Jones in a television Gardening Club programme from Bodnant in North Wales said he thought this was lime tolerant. It was a surprise to me, but I hope in due

course to prove him right. 'Gold Haze' was chosen just because I liked it.

One final point I'd like to mention is that, remembering the success of the yellow *Antirrhinums* during the first summer, I have planted two *Potentilla fruticosa*, which make a pleasing contrast to the heath and bridge the gap from May to August. Now the beds and borders are full, to add more varieties would entail losing more lawn. No, I am satisfied with my Heather Garden on Chalk—for the time being!

Mr. Stow has discovered how well yellow-flowered plants contrast with the reds and purples of heathers, and some, as he rightly says "also bridge the gap between May and August". Besides the dwarf varieties of *Potentilla* e.g. *P. Nana Argentea*, 'Donard Gold', *fruticosa* 'Arbuscula' etc., there are *Cytisus* 'Golden Sunlight' and dwarf gorse such as *Genista hispanica* (two-foot high hummocks), *G. pilosa* (trailing) and the double flowered *G. tinctoria* fl. pl. These all flower in May and June, and often long afterwards, all are dwarf and none seem to mind the dry conditions which often prevail in heather gardens and beds. (Ed.)

JULY HOLIDAY

B. G. LONDON, HIGH WYCOMBE

Having previously explored the western end of Cornwall, this year we decided to do the eastern side. I expected Bodmin Moor to be a happy hunting ground for heathers, but alas, I found it was not a moor in the accepted sense at all. I enquired amongst the local people where we were staying but none of them knew where I could find heather growing wild.

From my faithful companion, the Society Year Book, I found that the nearest member was Mr. Rowan, Kernock, Saltash. Off we went then to Saltash, only to find that no-one knew of Mr. Rowan's Heather Nursery. On phoning him up I learnt from Mr. Rowan that his place was Pillaton, and he gave me instructions for getting there. Traversing narrow single track lanes, which scared my passengers in case we should meet anything, we eventually traced Mr. Rowan via his home to his office at Kernock. I introduced myself and said I was intrigued

by his address in the Year Book as a White Heather Grower. He told me that he exported white heather to many countries, including Holland, Canada, Germany, and even Russia. I asked if he sent any to Scotland, the home of the white *Calluna*, and he said he did. He asked his son to show me round, who took me into a field of tall bushes and told me "This is it, now what would you like to know?" I must have looked rather bewildered, because he added. "These bushes are *lusitanica*, and that is what we grow".

We both laughed when I explained how I had assumed that it was white *Calluna* they grew, and he then told me that the farm was started 40 years ago by Mrs. Rowan's grandfather and now spreads over 25 acres. The oldest bushes are 40 years old and the youngest 20. In a good year the flowering season is from October to May, and they are experimenting with cold storage, storing the sprays in ventilated polythene bags, to make the season last even longer. New fields could easily be planted if required from the numerous seedling plants which appear under the bushes. A hot June and July usually means a long flowering season. It was a very interesting visit and well worthwhile.

With no wild heather downs to explore in the vicinity, we next visited Truro, first call being Treseders' Nursery. Although it was lunchtime when we arrived, on introducing myself we were given freedom to look round the nursery until someone returned. There was plenty to see to keep us interested and boxes galore of heather cuttings, especially *E. carnea* 'Pink Spangles'. Later I was told its history.

Treseders had laid out a heather garden for a lady customer, and had erected a bird bath near some *E. hibernica* plants. Where the bird bath was usually emptied there later appeared several heather seedlings. When these flowered, one plant stood out from all the rest, a real bicolor, with pale lilac sepals borne at right angles to deep rosy-red bells. The extra large bells are on show from January to March.

Mr. Treseder directed me to a stand of wild heather about 2 miles to the south-west of Truro. Hunting over

this we spotted some unusual light-foliaged plants. Grasping them, we realised by their stickiness that we were seeing *E. ciliaris* in the wild for the first time.

The weather now turned cold and wet, so on the Saturday we set off for Devon. On route we called to see Mr. L. W. Smith at Budleigh Salterton and, although unexpected, were given a very hospitable welcome and shown round their beautiful garden situated high on the hillside. There I saw *Erica umbellata* and the Arctic heath (*Phyllodoce*) for the first time.

The next day we went to Aylesbeare Common, a few miles from Sidmouth. As it was hot the others sunned themselves whilst I prowled amongst the heathers on my own. I was lucky within 15 yards of each other I found three white *Tetralix*, of which I took cuttings, and another not yet in bloom, which seemed to have a golden look about its foliage.

The next day we returned home and now, with my cuttings potted up I really feel it was a memorable holiday and wonder if there is a 'LONDON PRIDE' amongst them.

Heathers for a Gale-Swept Coast

BETTY M. KERSHAW, FLEETWOOD, LANCS. (1966)

After three years of combating constant salt-laden gales and frequent flooding due to poor drainage, our garden is gradually being tamed. At first we fought with the sticky clay during spring only to watch it bake and crack in summer. Various dwarf bedding plants which we tried were unable to survive even one severe gale. Then, with a gardener's eternal optimism, we decided to try heathers. We read as much as we could about these accommodating little plants and soon realised that our soil was unsuitable for any but the winter-flowering varieties.

In September 1963 we ordered a collection of heaths, leaving the choice of varieties to the discretion of the nursery. We had already marked out a site, and although

it was impossible to give the plants shelter from the high winds at least we could give them good drainage. A thick layer of rubble was placed at the base and overlaid with partly rotted turf. We had already been making compost according to Kenneth D. O'Brien's veganic system, and although this was intended primarily for vegetables the heather site claimed its share. A bale of peat mixed with soil and sand completed the top layer and our heather bank, sloping gently to the south, was ready to take a hundred winter-flowering plants. These included carneas 'Springwood White,' 'Springwood Pink', 'Vivellii', 'Carnea', 'Ruby Glow', the hybrids 'Arthur Johnson', 'George Rendall' and 'Silberschmelze' and *E. hibernica (mediterranea)* 'Superba', 'Rosea' and 'Alba'. Some of these flowered within a few weeks of planting and we had endless pleasure from watching them develop during that first season. Inevitably we had losses, but the ninety survivors grew and flourished with a vigour which openly defied our difficult climatic conditions. We have since had dozens of layered offspring from the original plants and one or two of the now large parents have been moved to other sites.

Success with these heaths led us to grow more ambitious. We are slowly but successfully raising a few *Callunas*. Several *vagans* planted last autumn which appeared to have died are now nobly showing new growth, and three tree heaths—*arborea* 'Alpina', *australis* and *lusitanica*—have survived the winter and are quickly covering their brown scars. Last summer we bought two tiny pot-grown *terminalis* plants. These have surpassed all expectations and have grown to about ten times their original size.

The critical period with us seems to be the first winter. All survivors then quickly become established, and although subsequent searing winds may brown a few tips no lasting damage is done. Very few *Callunas* remain evergreen with us; their moribund appearance during winter and early spring can be very depressing, but by May pin-points of new growth can be seen and these develop rapidly into long stems tightly packed with flower buds. Heather enthusiasts will know how incred-

ibly graceful these can be, especially when viewed against a background of carneas, for the green growth of these winter-flowering heaths presents a picture of spring freshness throughout the jaded days of high summer.

We are rapidly extending the area set aside for heather growing, and we now make a bin of lime-free compost which is used as top dressing and helps new plants to become established. As plants in the herbaceous border die (and here they surely will!) we shall raise the level of the bed and gradually allow it to be taken over by heathers. Already we have lost a large group of pinks and carnations, several delphiniums and all the pyrethrum. But who cares—it looks as if we *can* grow heathers, and nothing in the garden gives us more pleasure.

1967

Writing this footnote twelve months later, after a freak, practically frost-free winter, one might expect to report a wealth of advanced luxuriant growth. Instead, all the heathers have seemed reluctant to put forth their spring shoots. It has been a season of unremitting gales, blowing from all points of the compass, although chiefly from the north-west. During early spring we suffered eight weeks of what the locals call a 'black wind'. This killed even the ubiquitous *Euonymus* and, inevitably, such continuous wind abrasion damaged the heathers severely. New growth has been very slow to start and only now, in June, are we able accurately to assess losses. These are fewer than at first feared and occur mainly in varieties of *vagans* and *Calluna*, neither of which were as well-established as the carneas. The three tree heaths are beginning to grow strongly again but a new one, *Veitchii*, although placed in a sheltered position, has shown no sign of life since March.

Most carneas and hybrids were slower and paler in flower this winter, but the colours deepened particularly vividly in early spring and the flowers were retained until the end of May. Usually we see hosts of worker bees around the plants in April; this year it was May 7th before the first few appeared.

In spite of a disastrous winter we have lost proportionately fewer heathers than either roses or herbaceous plants. None of the new young *Daboecias* survived but possibly we had a premonition of their demise because we took a few cuttings in September. These rooted quickly and are now growing fast. Some *Daboecia* seeds sprinkled over a seed-pan filled with peat germinated freely in March. It will be interesting to see if we can raise plants that will ultimately withstand the salt laden gales.

HEATHERS IN BATAVIA, NEW YORK

(Extract from a letter received from Mr. Harold W.

Copeland of Chatham, Mass.)

Wholly unlike the Pacific or Atlantic coasts is Batavia, New York, inland about 300 miles and in hardiness zone 4 where limits of average annual minimum temperature are -20°F to -10°F . Conditions there for growing heathers are perhaps as harsh as can be found in the eastern U.S. Hence it may be especially interesting to read a report from Gerald S. Wallace, who has been testing heathers for 5 years in Batavia, and who is a member of the Heather Society. He writes . . .

"Our ground is never bare for more than 3 weeks in winter, sometimes in December, January or March, with temperatures near zero. At the time of writing (February 5th, 1966) we have 22 inches of snow on the level; usually 10-12 inches. *Daboecia* all died and have had no luck with *E. cinerea*. *E. Tetralix* does not do well. *E. vagans* forms are excellent—'Lyonesse', 'Mrs. D. F. Maxwell' and 'St. Keverne'. All *E. carnea* cultivars thrive—'C. M. Beale', 'King George', 'Praecox Rubra', 'Ruby Glow', 'Sherwoodii', 'Springwood Pink' and 'Springwood White', 'Vivellii'; also the hybrid 'Arthur Johnson'. *E. x Williamsii* does well, also *Bruckenthalia spiculifolia*. Most *Calluna* cultivars do well—'Alba Erecta', 'Alba Rigida', 'Aurea', 'County Wicklow', 'Crispa', 'Else Frye', 'Flore Pleno', 'Goldsworth Crimson', 'H. E. Beale', J. H. Hamilton', 'Mayfair', 'Pyramidalis', 'Roma', 'Rosea'.

The Song of the Heather

*(Translated from the Irish Gaelic and found by our
President in an old periodical.)*

A blossom there blows
That scoffs at the snows
And faces, root-fast,
The rage of the blast:
Yet sweetens the sod
No slave ever trod
Since the mountains upreared
Their altars to God.

That Flower of the Free
Is the heather, the heather;
It springs where the sea
And the land leap together.
Sing, Nations are we,
Yet, beneath its proud feather,
In heart we are one
Wheresoever we be.

Our blossom is red
As the life-blood we've shed
In Liberty's cause
Under alien laws;
When O'Neill and Lochiel
And Llewelyn drew steel
For Erin's and Alba's
And Cambria's weal.

Then our couch when we tired
Was the heather, the heather,
Its beacon we fired
In blue and black weather,
Its mead-cup inspired
When we pledged it together
To the king of our choice
Or the maid most admired.

Notes on British Heathers

IV Genera other than *Calluna* and *Erica*

DAVID MCCLINTOCK, PLATT, KENT.

I have never seen it specified *which* heathers the Heather Society covers; but three or four other heath-like plants are to be found wild in our islands which might come within its purview—*Andromeda polifolia*, *Daboecia*, *Phyllodoce caerulea*—the last two were once included in *Erica*—and perhaps *Pernettya mucronata*, the Chilean Prickly Heath. *Bruckenthalia*, like *Erica carnea*, is known nowhere in our islands outside gardens. Nor are any of the Cassiopes; but I still have a feeling one of them could be found in Scotland. The Crowberry, *Empetrum nigrum*, was classified among the heaths by the early botanists, as *Erica baccifera*; and even that has had varieties listed in catalogues, such as 'Scoticum' and 'Tomentosum,' within the last half century.

However, I was told that all these except *Daboecia* fall without the Society's scope. So I shall omit even the surprising history of the charming *Andromeda*, the Bog Rosemary, quite the earliest heath to be offered in variety. (At least nine were listed by 1790—one nursery alone offered eight varieties in the first decade of the last century—and 26 by 1826. In all I have notes of 52 names used since 1736, but of no white form before 1934.)

ST. DABEOC'S HEATH—DABOECIA

There are two species. One is the Irish native *D. cantabrica* which grows down the Atlantic coast of Europe from Co. Mayo to Cantabria, i.e. N. Spain: *D. polifolia* uses a more recent specific name, under which the plant was at one time included in *Menziesia*. The other is *D. azorica*, from the Azores indeed, and named only in 1932. This is somewhat tender, but produces hardy offspring when crossed with our own species.

The three known hybrids of this parentage, which have been in commerce since 1963, at present prosaically known as Nos. 1, 2 and 3, derive from seedlings given to Mr. Jack Drake by the late Mr. W. Buchanan of Bearsden, Glasgow. It seems possible that one or two other of our cultivars might be similarly tinged with this tar brush, e.g. 'Porter's Variety' and 'Praegerae.' This is, however, purely a guess. A. T. Johnson wrote of *D. azorica* in 1942, 'I have observed considerable variety in seed-raised plants, both in the colour of the flower and in hairiness of the foliage, this quite apart from the results of hybridisation with *D. cantabrica*, which is said to have occurred.' I wrote on the 'Globosa' hybrids in the last Year Book.

The origin of the delightful 'Praegerae' may now never be known, all the people concerned in its discovery being now dead, including Mrs. Teacher, near whose home at Spider's Bay it may well have come from. The Irish Naturalist's Journal in 1960 had a note in it by Mr. A. W. Stelfox, the great Irish naturalist, and Mr. P. L. Wood, of the Slieve Donard Nursery. I have discussed this with these authors who have taken much trouble, but can add little to their note. The variety was first catalogued in 1946, which implies that Mr. Slinger there must have had it not later than the early days of the war. It was given to him by the late Dr. R. Ll. Praeger, but beyond this nothing seems to be recorded. I once made a note that it was found in 1932 by the Hon. Mrs. Lionel Guinness, but I cannot now trace the source of this. Enquiries continue however, and more information may yet be found.

St. Dabeoc's Heath was, in fact, recorded as a wild plant in Ireland as long ago as the end of the 17th century, well before any other heath there. Its vernacular name is as old, but the connection with St. Dabeoc, a 16th century Saint, is problematical—see my 'Companion to Flowers,' and also on the transposition of the vowels in the Latin name, an 18th century error which the Rules of Nomenclature do not allow to be amended. The plant is one of the glories of Co. Galway in late sum-

mer, when it bespangles the hillsides of golden Western Gorse, *Ulex gallii*, with its large bells, which seem to vary little in colour or size. It is worth going a long way to see this sight. The white-flowered form seems to be very rare in the wild. It was first recorded by J. Kenny about 1820, but I know of only three people who have seen it wild in Ireland since 1874. It may still be in two of these localities at least.

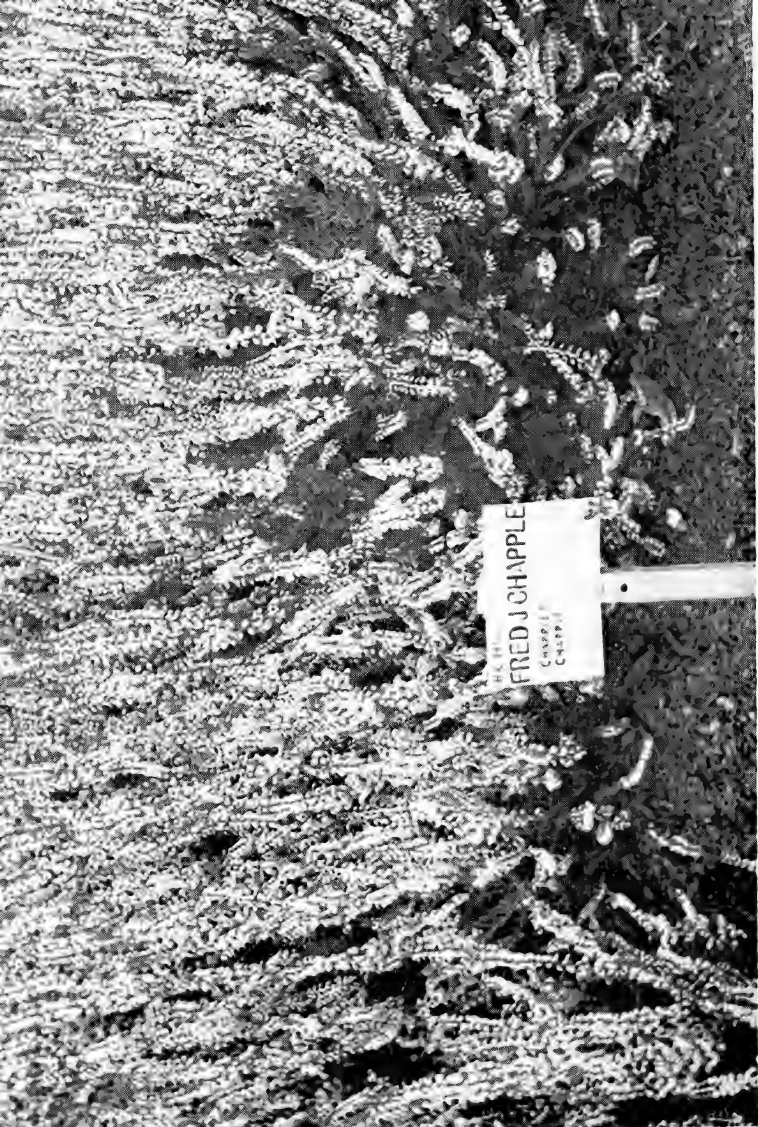
Another interesting variety of this heath is 'Bicolor'. 'Varicolor', which is apter, was suggested as a name for it in 1874, after the plant had been grown for some years at Knaphill. But its source even then was forgotten (indeed the origin seems known of practically none of our *Daboecias*), although the earliest date I have found for the name 'Bicolor' is only 1872. This has always seemed to be a plant which would repay anatomical study, to discover what decided which flower would be white, which purple, which dull pink and which striped. More experiments could be made with cuttings from particular branches, and with seed.

A variety of which I would dearly like to know more is 'Calycina'. This was described in 1891 as having white and red flowers with a calyx developed in such a way that the flowers appeared double. So far I have failed to lay hands on the source of this description or find out any more about this strange form.

I have noted something like 45 names for varieties of this heath, several of which are synonyms and many of which are of doubtful value. I am all the more intrigued by this total because the plant seems to vary so little in the wild. But perhaps this impression is because I have not spent long enough looking? Nevertheless my personal opinion is that the forms of *Daboecia*, those of *E. x darleyensis* and colour foliage *Callunas*, give the finest shows of all our hardy heathers.

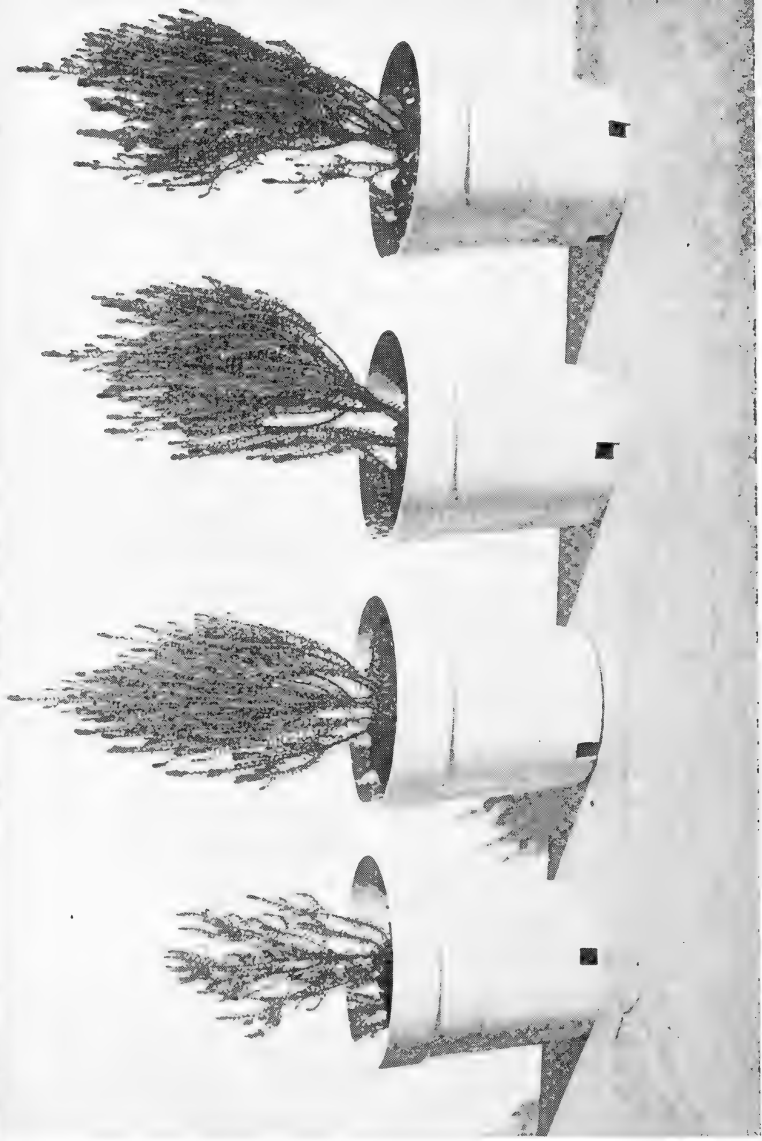


Heather Garden.
Kellowen,
Co. Down,
Miss C. J. Elliott.



R. H. S.
Calluna Collection,
Wisley.





Fertilisers
"Erica Stumpy",
(pp. 13-14)

BEGINNER'S STORY

W. H. HEADLEY, LEICESTER

I have just planted my first heather bed. Digging operations began in March, soon after I became a member of the Heather Society. Originally I intended to plant *carneas* only, as the bed can be seen from the house and I could visualise the pleasing effect during the dreary winter months. But I decided it wouldn't look very exciting in the summer.

Whilst pondering over this I was busy studying catalogues received from various reputable nurseries and here I met my first problem. As a raw beginner I had no idea what to order my only experience to date being with 'Springwood White' and 'Springwood Pink'. I thought the best plan would be to put taller varieties at the back and concentrate smaller ones nearer the front. But now came my second headache! I liked the sound of 'Silberschmelze,' but one catalogue gave its height as 12 inches another as 24 inches. The hybrid *Williamsii* was quoted as 6 inches, 8 inches, 12 inches and even 18 inches in one catalogue.

I finally decided to plant just the varieties which were given a good write-up in the lists and ordered three each of *E. x darleyensis* 'Silberschmelze,' *E. cinerea* 'Golden Hue,' *Calluna* 'Cuprea' and 'Tricolorifolia,' *E. carnea* 'Aurea,' 'Vivellii,' 'King George' and, of course, my first loves 'Springwood White' and 'Springwood Pink.' I also found room for one Corsican Heath and a dwarf conifer (*Thuya occidentalis* 'Rheingold'). The planting distances were, I am afraid, rather less than those suggested in Mr. Chapple's book, mainly 14 inches, but 18 inches for 'Silberschmelze' and only 12 inches for 'King George.'

Heaven only knows what it will look like in 3-4 years time and I only hope the experts won't take too dim a view of my planning. Anyway, if the worst happens I can always dig them all out and start again!

Size of garden: overall length, 13-ft.; width, 3-ft. 9-ins.

Some Notes on Craiggamore and *Erica Mackaiana*

BY P. P. FLAVIN, LISBURN, N. IRELAND

All the books mention that the classic station of *E. mackaiana* is Craiggamore in Connemara. In fact there is no such place as Craiggamore. Anyone who tries to find it, as I did, is in for a long search.

My interest was first aroused by the brochure of the Irish Tourist Board (No. 29). This mentions that 'Roundstone is a quiet, beautifully situated little resort and the district is a happy hunting ground for the naturalist. Urrisbeg (987 ft.) should be ascended for the view it affords of the strange lakeland to the north and the fine seascapes in other directions. Some unusual plants, including *Erica mediterranea* grow on the slopes, and another rare heath, *Erica Mackaiana*, is found on the shores of Carrigamore lake a few miles away.' I went there to find it. The French have a proverb that it is better to travel hopefully than to arrive. In this case it was amply proved. No one in the area had ever heard the name before, either under the Tourist Board form of Carrigamore or the botanists' form of Craiggamore.

The approximate area is clear enough. It is a place of bog and innumerable lakes, which lies between Roundstone and Clifden in W. Galway. There are some pointers which narrow the search a little. Dr. R. Ll. Praeger in his book 'The Botanist in Ireland,' (389) says, 'This neighbourhood (Roundstone) is the only home outside the Pyrenean region of *Erica Mackaii*, which has its headquarters at Craigga-more Lough, four miles NNW of Roundstone.' He even has a photograph of *Erica Mackaii* on the edge of Craigge-more Lough, Connemara.

A letter of Alexander G. More to Professor Babington, quoted in 'Life and Letters of Alexander Goodman

More,' p. 249, describes a search for *E. ciliaris*. 'Now, the current tradition was that Bergin alighted from a car while driving near Craigga-more, and stumbled upon *Erica ciliaris* close to the road itself, having stepped across a bank or wall.' As a matter of interest they did not find the *E. ciliaris*, but it has recently been refound there.

The 'Cybele Hibernica' of 1866 provided a little more information (p. 182) '*E. Mackaiana*. Wet boggy heaths; very rare. On a wet heath called "Craigga More," by the side of the road between Roundstone and Clifden, within three miles of Roundstone, Connemara; Flor. Hib., etc. Also by the hamlet of Letterdife, within a mile of Roundstone; Mr. L. Ogilby.' The mention of the road ties up with Alexander More's letter, which indicates that wherever Craiggamore is, at least it is beside a road.

But it still left the actual location as elusive as ever. So my next call was to the Ordnance Survey Office in Phoenix Park, Dublin. Here again I had little success. The original survey of 1838 made no mention of a Craiggamore within miles of the right spot. A great deal of trouble was taken to check and double check through the most detailed records, but with no success. It was then suggested that an approach to the Botany department of the National Museum in Dublin would prove more fruitful, and indeed it did. I saw there Miss Maureen Scannell, the head of the department, who gave me the location of *E. mackaiana* and referred me to an article by Professor D. A. Webb of Trinity College, in the 'Irish Naturalists Journal' for 1954. You can imagine my feelings when, at the beginning, he mentions that of course Craiggamore appears on no map.

My search eventually revealed that *E. mackaiana* grows in an area which is centred on Lough Nabrackmore. For those who wish to see it in its natural habitat it is quite easy of access. The $\frac{1}{2}$ -inch to the mile map of Ireland, sheet 10, is the relevant one, and for those who can read a map, the reference is 72 45. The map shows that a road runs across the bog from Toombeola to Balinaboy. Along this road, and on the south side of it, lies

a low hill, marked on the map as being 201 feet high. It is a prominent feature and can hardly be missed. At the western end of this hill lies Lough Nabrackmore. The hill is obviously Craiggamore, which is Irish for 'The big rock.' Lough Nabrackmore means 'The lake of the big trout.' It is not too difficult to see how the original name came into being.

I spent a few days there at the end of August, and spent some time searching the area. The country is not easy to walk over, but I think I managed to cover the relevant part. *E. mackaiana* grows in abundance at the eastern end of the lough and mainly on the north side. It grows in a large area around the lough, but becomes very sparse and scattered the further away from the lough one goes. Professor D. A. Webb in his article in 'The Irish Naturalists Journal' of 1954, mentioned above, delineated the area as being elliptical in shape with Lough Nabrackmore at the centre. The total area covered is about one and a half square miles. I did find some a good mile or more from the lough, but would hesitate to be too categorical about this. *E. mackaiana*, and *E. x Praegeri* are very easily confused, and it is not always easy to tell which one is which. For those who don't like walking, it does grow along the roadside. In fact, there is even some growing up through the tar of the road. The great clumps of pink flowers are a magnificent sight, and here and there it grows very freely in great drifts.

I was interested to try to add something positive to the controversy about the sterility or otherwise of *E. Mackaiana*. It is commonly accepted that it is sterile in Ireland, although in Spain, I gather, it is said to set seed. A superficial examination was sufficient to establish that most of the propagation was taking place vegetatively by layering. The stems can quite easily be traced for yards from one plant to another. But there were places where I found seedlings, or apparent seedlings, which were too far away from any other plant to have been layered. One I found, for example, was growing in an area where the turf had been cleared from the surface, leaving an area of bare peat several yards across. In the centre of this,

as the only vegetation, was growing an *E. mackaiana*. The nearest other plant was about five yards away and the plant itself, I should say, was a year old. I carefully and tediously washed it out of the soil, and could find no trace of a root which went anywhere near another plant. I know this is not conclusive by any means, but it was only one of several instances. I brought back with me specimens from different places in the area. I have recently been examining the ovaries of these, and have not yet found a trace of seed, even under microscopic examination. It is obvious that *E. mackaiana* reproduces mainly vegetatively, but I still have a lingering suspicion that some seed may be set.

E. mackaiana has another station in Donegal, at Upper Lough Nacung. It is not abundant here since the level of the lough was raised by the building of a dam. It was also discovered by Alexander More at Carna, about six miles south of Roundstone, in 1874. But it is doubtful if it still exists there, recent searches in the area having failed to find it.

There have been reports of it from other places, such as the slopes of Errisbeg and Letterdife, both places being within three or four miles of Lough Nabrackmore. But it has never been confirmed there, and is almost certainly *E. x Praegeri*. These two heaths can be so easily confused.

In many ways I am grateful to all the authors who have perpetuated the name Craiggamore. They gave me a stubborn determination to get to the bottom of all the confusing published facts, which led to the discovery of a fascinating part of Ireland. For those interested in heathers it must be one of the most rewarding places in the British Isles. For anyone not afraid of walking, the bog between Roundstone and Clifden is a wonderful experience. The loughs are lovely and quite deserted. There is nothing but the occasional turf cutter, the birds and the heaths. Here grow *E. hibernica*, *E. ciliaris*, *E. mackaiana*, *E. x Praegeri*, *E. Tetralix*, *Daboecia cantabrica* and *Calluna vulgaris*. I know of nowhere else which has such a wealth of heaths growing in such a wonderful setting.

FERTILISERS— Magnesium Sulphate

H. C. PREW, NORTHWICK, CHESHIRE

May I appeal to any members who have used fertilisers or other forms of nourishment for their heathers to send in to the Year Book their experiences. Mr. J. P. Ardron of Sheffield raised this point first (1965, p. 51) and Brig. E. T. Weigall (1966, p. 44/5) provided some interesting information on his treatment of cuttings.

There are many parts of the country where conditions are not obviously unsuitable for growing heathers and yet they do not flourish as one would wish. If the failure to do well is the result of some deficiency in the soil, there is no reason why heathers should not respond, as do other plants, if the deficiency is made good. I can see no case for a 'taboo' on the use of a fertiliser, in some form, for heathers. Messrs. Maxwell and Beale advertise their 'Max. B' and Brigadier Weigall has obviously used both Maxicrop and Eclipse fish manure with advantage. There are other things, e.g. spent hops, chopped bracken or bracken mould etc., which might be beneficial.

'Epsom Salts' (magnesium sulphate) is not a fertiliser in the usual sense but its use can be beneficial on alkaline soils, as the following experience shows.

Friends of mine in Suffolk (Framlingham area) built a raised rockery bed in 1961. Stone is difficult to obtain in that area and the only material they could get at a reasonable price was a soft limestone, of which they fetched some 10 tons in their trailer, in several journeys, from over 20 miles away. Among their plantings were some *Erica carnea*, including that most vigorous of growers 'Springwood White'. When I saw them in the summer of 1963 they were 'existing'—hardly more. The bad winter of 1962/3 had crumbled some of the soft limestone so that the pockets of soil had everywhere a liberal sprinkling of chippings, which had undoubtedly contributed to alkaline conditions.

Asked for my advice, I suggested watering once a fortnight with 1 oz. of Epsom Salts dissolved in a gallon of water, from the end of flowering to the end of July. This was done and when I saw the results in September 1965 they were quite marked. If not luxuriating, the heathers were growing, looked healthy and had flowered well, instead of very sparsely, that Spring.

The addition of magnesium can be beneficial in at least three ways:—

(i) Magnesium is an essential element in the constitution of chlorophyll and it is also concerned in the phosphate nutrition of plants. There are cases, not very common admittedly, of soils with a magnesium deficiency.

(ii) While I was attached to a Chemical Works in Chile in the late 1930's, I came across, in an American Scientific Journal, a report by a U.S. Agricultural Research Station that evidence had been obtained that the ratio of magnesium to calcium needed to be above a certain level for a soil to have a high nutritional value. At that time the 'certain level' had not been defined but the addition of magnesium, especially to alkaline soils, could well be beneficial.

(iii) The family Ericaceae is not so much a lime hater as an iron lover. The presence of calcium carbonate (i.e. limestone or chalk) in the soil not only renders the iron insoluble but also prevents the plant from utilising such iron as it is able to pick up. Treatment with magnesium sulphate slowly converts the calcium carbonate to calcium sulphate, in which form it does not produce alkalinity nor react with the iron.

In the case of the Suffolk rockery, I believe that the benefit obtained from the use of magnesium stemmed mainly from the action under (iii) above, but (ii) above may well have played a part.

Over the possible benefits from adding magnesium to soil, it is of interest to note that the Murphy advertisement in the 1966 Year Book for 'Sequestrene'—mainly used for its soluble iron content—says that it contains manganese and *magnesium*.

Heathers in Flower Arrangement

FLORENCE LAUGHER, STONE, STAFFS

At the present time Flower Arrangement is a very flourishing and popular hobby but heathers, as garden plants and as cut blooms, are very little known, even amongst gardeners let alone the general public. There is, of course, a great deal more to Flower Arrangement than just sticking a few flowers into a pot, adding a further improvement by the insertion of foliage and then telling everybody what you have been doing. In writing this article I am not attempting to instruct in Floral Art—it would take too long. I am assuming that the reader is already aware of the basic principles and that he or she is more concerned to know of the possible uses of the heathers themselves in Flower Arrangement.

The value of heathers lies chiefly in their possibilities as 'fillers-in' and their powerful ability to emphasise, subtly, the main colours used in the arrangement. To be used successfully heather must be used as heather—that is, do not attempt to twist and torture it into fantastic shapes, in a vain effort to make it look like something else. Use the sprays as they are, and build your arrangement up carefully, using the lovely tones of green, grey-greens, silver and gold to set off the central colours. If you do this you will find that your heathers will never fade into the background, as foliage so often can do. Instead it will take on a quiet importance of its own, enhancing the general effect.

Practically speaking, it is not advisable to use a pin-holder with heathers, because the stems are too fine and brittle. Use Oasis or Florapak instead. Keep it fairly moist and the heather will last for several weeks, unless you are using the flowering sprays when you may find that the flowers drop a little after a fortnight but the foliage will remain. The Callunas in their various forms are more suitable than the Ericas, unless you wish to make a flat table arrangement. For these the Ericas, especially the *carnea* varieties, are supreme. Take a flat

dish and place a square of Oasis either in the centre or slightly to one side. In the centre place whatever winter flowers you have, such as snowdrops, crocus, grape-hyacinths and the like, arranging them carefully to suit the shape of your dish and varying the height from the centre downwards. Then take several sprays of winter flowering *Ericas* and gently insert them among the flowers and around the edges. You can finish off the arrangement with one or two sprays of evergreen, such as *Pyracantha* or variegated holly. If your flowers are white, use either the white or pink *Ericas* but if your flowers are yellow then use only the white or purple, not the pink. The effect can be varied by using some of the silver *Callunas*, such as 'Silver Queen'

Heathers will associate happily with most flowers, but avoid using them with the really enormous ones such as *Gladioli*, *Dahlias* and the exhibition incurved *Chrysanthemums*. One of the loveliest combinations possible is a summer one—roses, heather, *Santolina* and *Pyracantha*. Try taking four roses, one each of different shades of one colour—for example, vermilion, scarlet, crimson and magenta. Arrange these in circular shape, with the *Pyracantha* on each side of the centre roses. Then carefully fill your shape in, using the *Santolina* and the lovely green-gold 'Joy Vanstone' *Calluna* or 'Gold Haze'. You will be surprised how attractive the result can be. The taller growing varieties listed as suitable for cut flowers will also go well with *Irises* and shrub flowers such as *Lilac*. In this case it is better to use a simple, elegant vase and netting, or chicken wire. Some really attractive effects can be achieved, provided you remember the basic rule—use your heather for substance and colour, *never* for line or shape. If you are a devotee of *Ikebana*, heather can be used here too, but in this case it is best to use it sparingly to give emphasis. I have also seen a really beautiful arrangement composed of autumn coloured foliage of beech, sycamore and azaleas, with the white and purple heather massed in the centre. For sheer delight of colour, this took some beating. I am sure that if you look around your heathers you will see the almost endless variations possible.

SOME ASPECTS OF HORTICULTURE IN S. AFRICA

The following is an extract from a paper read at the Third World Congress in Public Park and Recreation-Administration at Brighton on May 17th, 1967 by Mr. W. W. Webster, Director of Parks, Krugersdorp; at which I was a delegate

H. NICHOLSON

CULTIVATION OF SOUTH AFRICAN PLANTS: ERICACEAE

The *Ericas* (heaths) may be propagated by seeds and cuttings. Seeds may be sown in spring or autumn and since the seeds of most species are fine they should be watered by the percolation method. A fine light soil mixture is required, to which a balanced fertilizer has been added. As *Ericas* are acid loving plants a p.H. reading 6.0 will suffice.

Cuttings of *Ericas* should be young shoots about an inch long inserted around the edge of small pots in sand or mixture of sand leafmould, placed under mist to strike root.

There are numerous beautiful heaths among almost five hundred species found in the Republic of South Africa, of which the following are noteworthy for Parks.

Erica— *E. baccans*, *E. blenna*, *E. caffra*, *E. cerinthoides*, *E. chamissonis*, *E. decipiens*, *E. glandulosa*, *E. exurgens*, *E. globosa*, *E. hirtiflora*, *E. lateralis*, *E. mammosa*, *E. peziza*, *E. sessiliflora*, *E. speciosa*, *E. taxifolia*, *E. verticillata*, *E. vestita*.

Note to the Editor from Hugh Nicholson:—

'In my article on the Netherlands in the last Year Book I referred to a *Calluna* cultivar which the Dutch were calling 'Long White'. Thanks to Mr. John Letts I now see this is the same as the old well-known continental white flowered "Elegantissima" purchased from Holland by them'.

Heather Rope

FRED J. CHAPPLE, ISLE OF MAN

Hung on the wall in Harry Kelly's cottage, which is part of the Manx Open-Air Folk Museum at Cregneash, is rope made of ling, known as Gad rope. (Old Manx Gaelic: Gaid—"A heath or heather rope"). Its long, twisted, tough, bare stems (of considerable age) are wrapped round in a circle. 'Gad' is one of the strongest and toughest ropes in the world and was used for tying up boats and in other ways. Another use for heather—tying up boats!

Arranging Heathers

J. E. FINCH, TWYFORD, BERKS.

My wife has found the following way of arranging heathers very effective:—

Make a basket by attaching, with florist's wire, a split cane handle to a 4½ inch foil dish (as used for baking small pies). Pack the dish with Oasis and insert the heather—pincushion wise.

These arrangements are long lasting and are very useful for taking to, for example, people in hospital because there can be no spillage of water.

Forthcoming Lectures

SHEFFIELD. January 17th, 1968, 7.30 p.m. Fulwood Old Chapel, Whiteley Lane. Mr. J. P. Ardron.

BINGLEY, YORKS. March 19th, 1968, 7.30 p.m. Memorial Hall, Eldwick (Eldwick and Gilstead Horticultural Society).

HARROGATE. April 27th, 1968, 2.30 p.m. Harlow Car Gardens Northern Horticultural Society (Hardy Plant Group).

REPORT ON WISLEY HEATHER TRIALS

The following extracts from Wisley Trial Reports are reproduced by kind permission of the Council, the Royal Horticultural Society.

The trials were inspected on the dates shown and the following awards made:

ERICA CINEREA (July, 1966)

C. D. EASON. F.C.C. Plant 12-14 inches high, 17-18 inches spread, fairly compact, erect, spreading, very vigorous; foliage very dark green. Flower stems 16 inches long; inflorescence 4 inches long; flowers single, Magenta (H.C.C. 27/1), flushed Magenta (H.C.C.27) and touched Tyrian Purple (H.C.C.727/2).

KNAP HILL PINK. A.M. Plant 9-10 inches high, 12-14 inches spread, fairly compact, erect, vigorous; foliage very dark dull green. Flower stems 7 inches long; inflorescence 2-2½ inches long; flowers single, Fuchsia Purple (H.C.C. 28/2) flushed Fuchsia Purple (H.C.C. 28 and 28/1) and touched Tyrian Purple (H.C.C. 727/2).

ROSEA. A.M. Plant 9 inches high, 20-26 inches spread, erect, spreading, very vigorous, foliage dark green. Flower stems 10-12 inches long; inflorescence 3-5 inches long; flowers single, Magenta (H.C.C. between 27/1 and 27/2) flushed Magenta (H.C.C. 27/1).

EDEN VALLEY. The A.M. made to 'Eden Valley' when exhibited in London in 1933 was confirmed. Plant 8½ inches high, 22 inches spread, erect, spreading, vigorous; foliage dark fairly glossy green. Flower stems 8-9 inches long; inflorescence 3-3½ inches long; flowers single, white, flushed Phlox Purple (H.C.C. 632/1), and on older florets, Phlox Purple (H.C.C. 632) towards tips.

ALBA MINOR. H.C. Plant 6½-7 inches high, 13-14 inches spread, compact, bushy, erect, vigorous, foliage dark dull green. Flower stems 6 inches long; inflorescence 1-1½ inches long; flowers single, white.

PENTREATH. (Raised by Knap Hill Nursery Ltd.) H.C. Plant 7-9 inches high, 15-18 inches spread, spreading, vigorous; foliage dark green. Flower stems 4½-5 inches long; inflorescence 2½-3¼ inches long; flowers single, a colour near Peony Purple (H.C.C. 729/1).

CALLUNA VULGARIS (March, 1967)

GOLDEN FEATHER. (Raised by Mr. J. W. Sparkes). F.C.C. Plant 15 inches high, 24 inches spread, spreading, vigorous; winter foliage shades of orange and yellow tinged a colour near R.H.S. Colour Chart, Red Group between 42B and 42C, under-

side of shoots a colour near R.H.S. Colour Chart, Yellow-Green Group 146C, lightly tipped orange-red. **As a summer and winter foliage plant.**

SUNSET. (Raised by Mr. J. W. Sparkes) A.M. Plant 14-15 inches high, 22-26 inches spread, spreading, vigorous; winter foliage a colour near R.H.S. Colour Chart, Red Group 41B, tipped and tinged a darker red, also tinged creamy yellow and orange, underside of shoots bright green tipped yellow. **As a winter foliage plant.**

ERICA CARNEA (March, 1967)

RUBY GLOW. A.M. Plant 10-11 inches high, 20 inches spread, spreading habit, vigorous; foliage fairly dull dark green. Flower stems 6-8 inches long; inflorescence $1\frac{1}{2}$ - $2\frac{1}{2}$ inches long; flowers single, young flowers pale mauve deepening with age to R.H.S. Colour Chart Red-Purple Group 73A, sepals a colour near R.H.S. Colour Chart, Red-Purple Group 73B, and tipped almost white, buds almost white.

ERICA CINEREA (June and July, 1967)

KNAP HILL PINK. F.C.C.

ALBA MINOR. A.M.

P. S. PATRICK. A.M. Plant 14 inches high, 20 inches spread, erect spreading, vigorous; foliage dark glossy green, tips of shoots tinged dark purplish-red. Flower stems 5-6 inches long; inflorescence $2\frac{1}{2}$ - $3\frac{1}{2}$ inches long; flowers single, a colour varying from R.H.S. Colour Chart, Red-Purple Group 71A to Red-Purple Group 72A with touches of Purple Group 78B.

TILFORD. (Raised by Messrs. Walter C. Slocock Ltd). A.M. Plant 16 inches high, 20-23 inches spread, erect, spreading, very vigorous; foliage medium dark glossy green. Flower stems 8-9 inches long; inflorescence $2\frac{1}{2}$ -3 inches long; flowers single, R.H.S. Colour Chart, Purple Group 78A flushed Purple Group 78B, some flowers Purple Group 77B.

CEVENNES. H.C. Plant 9-12 inches high, 12-14 inches spread, compact, erect, vigorous; foliage bright light green. Flower stems $5\frac{1}{2}$ -6 inches long; inflorescence 2 - $2\frac{1}{2}$ inches long; flowers single, R.H.S. Colour Chart, Purple Group 78A flushed Purple Group 78B, some flowers Purple Group 77B.

GLASNEVIN RED. H.C. (Raised by the National Botanic Gardens, Glasnevin, Dublin). Plant 13-14 inches high, 16-19 inches spread, erect, spreading, vigorous; foliage dark green. Flower stems 4-6 inches long; inflorescence $2\frac{1}{2}$ -3 inches long; flowers single, R.H.S. Colour Chart, Red-Purple Group 61B flushed Red-Purple Group 60B.

ERICA VAGANS (August 1967)

DIANA HORNIBROOK. A.M. Very compact, erect, vigorous; foliage dark green changing to light green with young growth. Flower stems 4 - $4\frac{1}{2}$ inches long; inflorescence $1\frac{1}{2}$ to $1\frac{3}{4}$ inches long; flowers single, Crimson (H.C.C. between 22/2 and 22/3).

SOME RECENT WRITINGS ON HEATHERS

- ANON 1965. *Erica cinerea* 'Atropurpurea'. *Gardeners Chronicle*, Feb. 6, Vol. 157, No. 6, p. 136.
- ANON 1966. Pruning Heather. *Gardeners Chronicle*, April 16, Vol. 159, No. 16, p. 383.
- ANON 1966. *Erica carnea* trials. *Gardeners Chronicle*, May 11, Vol. 159, No. 20, p. 459.
- ANON 1966. Heather Cuttings. *Gardeners Chronicle*, Sept. 14, Vol. 160, No. 11, p. 23.
- ANDERSON A. J. 1967. Callunas for Foliage Effect. *Gardeners Chronicle*, July 26, Vol. 162, No. 4, p. 15.
- BANNISTER P. 1965. *Erica cinerea*. *Journal of Ecology* (Botany) 53 2, 527-42. *Biological Flora*.
- BANNISTER P. 1966. *Erica tetralix*. *Journal of Ecology* (Botany) 54. 795-813.
- CHAPPLE F. J. 1965. 'Heather Varieties'. *Gardeners Chronicle*, June 19, Vol. 157, No. 25, p. 607.
- CHAPPLE F. J. 1966 'Carnea Heath'. *Gardeners Chronicle*, Feb. 26, 1966, Vol. 159, No. 9, 203-4.
- CHAPPLE F. J. 1967. The Story of the Sparkes Collection of Heather, and other Coloured Callunas. *Northern Gardener*, March 1967. Vol. XXI, No. 3, 45-50.
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- INGWERSEN W. 1965. 'Tree Heather'. *Gardeners Chronicle*, Feb. 20, Vol. 157, No. 8, p. 183.
- INGWERSEN W. 1965. 'Heather for Foliage and Flower'. *Gardeners Chronicle*, Sept. 18 and Oct. 16, Vol. 158, Nos. 12 and 16, pp. 268 and 364.
- KIMBER P. 1966. 'Heather all the Year'. *Gardeners Chronicle*, Nov. 30, Dec. 7. Vol. 160, Nos. 23 and 24, pp. 16-17 and 20-21.
- KRUSSMAN G. 1965. Weitere Beobachtungen an *Erica calluna*. *Deutsche Baumschule* Nr. 10 October. 302.
- MCCLINTOCK D. 1966. *Erica tetralix*, *Erica x praegeri*, and *E. mackaiana*. September. *Proceedings Botanical Society of the British Isles*, Vol. 6, Pt. 3, 276.
- MCCLINTOCK D. 1966. 'The Irish Heather'. *Gardeners Chronicle*, Sept. 14, Vol. 160, No. 11, p. 12.
- MCCLINTOCK D. 1966. 'Double-flowered Hardy Heather'. October. *Journal R.H.S.* XCI Pt. 10, 438-443.

- McCLINTOCK D. 1967. 'Heathers Rare and Heathers Common', July, Wildlife and The Countryside, No. 267, 20-23 (includes drawings of *E. cinerea* 'Schizopetala', *E. tetralix* 'Fissa' and *E. 'Stuartii'*).
- McCLINTOCK D. 1967. 'White Heathers and their Allies'. August. Journal, R.H.S. XCII Pt. 8. 347-53.
- MANNING L. S. 1965. 'Heaths and Heathers and their Cultivation in California'. Californian Horticultural Society Journal, January. XXVI. 2-13.
- MARSHALL J. M. 1965. 'Notes from Edinburgh' (on *Erica carnea*) Gardeners Chronicle, Feb. 27, Vol. 157, No. 9
- ROSS R. 1967. 'On Some Linnaean Species of *Erica*'. February. Journal, Linnaean Society, Vol. 60, No. 381, 61-75.
- SANTANOUR F. S. AND LUCENTE R. A. 1967. 'Anthocyanins in the Ericaceae'. Morris Arboretum Bulletin, March. Vol. 18, No. 1-11, 12-13.
- WAKEFIELD G. R. 1966. Two Summer Heaths (*E. umbellata* and *Bruckenthalia*) Gardeners Chronicle, Aug. 17, No. 7, p. 13.
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List of Members—October, 1967

* Indicates members willing to show their gardens by appointment.

† Indicates Nurserymen.

Group 1. Scotland

- ABERCROMBIE, J. G., Chapelhall, Toward, Dunoon, Argyll.
 ANDERSON, MRS. J. R., Watergate, Fortrose, Ross-shire.
 ANDERSON, G. B., Milbuies, 41, Gogarbank, Edinburgh 12.
 BARR, MISS K. H., 3 Balgair Road, Balfon by Glasgow.
 BROWN, R. A., Hillcrest, Dunbar Street, Lossiemouth, Morayshire.
 BURNET, F. R., Enterkin, Kilmacoll, Renfrewshire.
 CAMFRON, MISS E. K., Caldermill Hill, near Strathaven, Lanarkshire.
 CARMICHAEL, SIR JOHN, Magic Well, Balmullo, Leuchars, Fife.
 † CHRISTIE, T & W., The Nurseries, Forres, Scotland.
 CRABBIE, D., 82 Inverleith Place, Edinburgh 3.
 * DOBSON, Wm. S., 29 Barnshot Road, Colinton, Edinburgh 13.
 DOBSON, Wm. S. (JUN.), The Hill, Broomieknowe, Lasswade, Midlothian.
 * FOULIS, D. A., Cull, Easter Belmont Road, Edinburgh 12.
 FRAME, J. F., Braeside, 614 Queensferry Road, Barnton, Edinburgh 4.
 GILBERT, MISS E. E., Hollinhurst, Elm Avenue, Linzie, near Glasgow.
 GOW, A., St. Boniface, Fortrose, Ross-shire.
 HALKETT, A. C., Kevoek Lea, Kevoek Road, Lasswade, Midlothian.
 HUMBLE, B. H., Rose Cottage, Arrochar, Dunbartonshire.
 HUNTER, MRS. E. N., Shieldaig Cottage, Gairloch, Ross-shire.
 ILLINGWORTH, MISS C. E., Polbain, Achiltibuie, Garve, Ross-shire.
 IMRIE, I., 40 Stamperland Hill, Carkston, Renfrewshire.
 † KELLY, LT.-COL. H. A., Oliver & Hunter, Moniaive, Thornhill, Dumfriesshire.
 † LEIPER, MRS. I. M., Douchlage, Balfon Station, by Glasgow.
 † LYLE, R., De'aney & Lyle, Grange Nursery, Alloa, Clackmannanshire.
 McCRINDLE, K. D., 1 Drummond Rise, Dunblane, Perthshire.
 MACLEOD, G. H. T., The Cottage, Rhu, Dunbartonshire.
 MACROBERT, MRS. H., Duisdeer, Kilmacoll, Renfrewshire.
 MARKS, B. McK., 17 Banchory Avenue, Inchinnan, Renfrewshire.
 MERRY, MRS. E., Phoirreas, Beaulie, Inverness-shire.
 MINISTRY OF PUBLIC BUILDINGS & WORKS, Accounts Branch, Broomhouse, Drive, Saughton, Edinburgh 11.
 * MONTGOMERY, BRIG. E. J., C.B., C.B.E., Kinlochruel, Colintarive, Argyll.
 MOUNSEY, E. R., Rough Knowe, Barrhill Road, Dalbeattie.
 MOWAT, J. G., Braemore, Bourtree Brae, Lower Largo, Fife.
 PATTENDEN, H., Kirkbank, Glenloch, Castle Douglas, Kirkcudbrightshire.
 † PONTON, J. R., The Gardens, Kirknewton, Midlothian.
 REGIUS KEEPER, THE, Royal Botanic Gardens, Edinburgh 3.
 SCOTT, T. M., Clonburn, Resaurie, Inverness.
 SHAND, W. A., St. Edmunds, Milngavie, Dunbartonshire.
 SHEPHERD, MISS M., The Dales, Braidwood by Carlisle, Lanarkshire.
 THOMPSON, I., 21 Pantonyville Road, West Kilbride, Ayrshire.
 WALTER, REAR ADMIRAL K. McN., CAMPBELL, Clachan Beag, Achnasaul, by Oban, Argyll, also 19A Princes Gate Mews, London S.W.
 WHITSON, MRS. E. M., Wood End, Falls of Lony, Callander, Perthshire.

Group 2. Ireland

- ANDREWS, MISS E. L. B., Hul'stown, Derriagay, Lillburn, Co. Antrim.
 CARSON, T. A., Uisce Ban, Bailly, Co. Dublin.
 COLVILL, MRS. M. B., Cloghereen, Bailly, Co. Dublin.
 CRAMPTON, E., Whitehead, Co. Antrim.
 CROSSEY, M. T. W., Collina, Larch Hill, Craigavard, Co. Down.
 † DAISY HILL NURSERIES LTD., Newry, Co. Down.
 DOUGLAS, J. B., 3 Bel-Air Avenue, Ballybarnes, Co. Down.
 ELLIOTT, MISS C. J., Killoven, Co. Down.
 FLAVIN, P. P., H.Q. Northern Ireland Command, Lisburn, Co. Antrim.
 GAHAN, LT.-COL. H. M., Nestor Lodge, Kilmullin, Newtownmountkennedy, Co. Wicklow.
 GARRATT, MAJOR R., Rialto, Holywood, Co. Down.
 † GRAHAM, N. C., Stiles, Antrim.

- HARTY, MISS M., Ballinamona, Dungarvan, Co. Waterford.
 KANE BROS., MESSRS., Drumce, Castlewellan, Co. Down.
 KINGSTON, M., B.Ag.Sc. (Hort), Cedar Chalet, Lahadane, Bantry, Co. Cork.
 LATCHFORD, F. H., Luggala, Tralee, Co. Kerry.
 McCARTER, W. S., Heatherdene, Culmore, Londonderry.
 PREECE, MRS. N., Kells House, Kells, Co. Kerry.
 REEVES, MRS. E. A., Greenways, Lucan, Co. Dublin.
 † SLINGER, LESLIE S., Slieve Donard Nursery Co., Newcastle, Co. Down.
 THOMPSON, MISS B., 18 Fairway Avenue, Upper Malone Road, Belfast 9.
 WALKER, MISS N., Lisnoe, Orwell Park, Dublin 6.

Group 3. Northern

- ANDERSON, MRS. I., Woodlands, 1 Moorland Road, Poulton-le-Fylde, Lancs.
 ANTHES, MRS. P. C., Bryn Afon, Shatton Lane, Bamford, Sheffield.
 * ARDRON, J. P., Fulwood Heights, Harrison Lane, Sheffield 10.
 BAKER-CRESWELL, MISS K., Preston Tower, Chathill, Northumberland.
 † BENSON, CLIVE, The Nurseries, 281 Croston Road, Farington, Preston, Lancs.
 BICKERSTAFF, C. E., Dyffryn, 2c Norfolk Hill, Grenoside, Sheffield.
 BLAKE, J., Dencroft, Oxtun, Rakes, Barlow, near Sheffield.
 BOYD, MRS. D. E., Mooreedge, Warren Lane, Eldwick, Bingley, Yorks.
 BREEZE, R. O., Summerfields, Beach Road, Port St. Mary, I.O.M.
 CAMPBELL, MRS. F., Rothley Lake House, Morpeth, Northumberland.
 CASWELL, MRS. H., The Gables, Horncastle Road, Woodhall Spa, Lincs.
 * CHAPPEL, F. J., Mafeking, Bradda West Road, Port Erin, I.O.M.
 COLLUCK, K., 80 Dore Avenue, North Hykeham, Lincoln.
 COOPER, MRS. V. C. V., Hillside, Buxton Road, Disley, near Stockport, Cheshire.
 COX, S. J., The Bungalow, Houghall, Durham City.
 DARBYSHIRE, J. K., 45 Wilford Avenue, Brooklands, Cheshire.
 DAVEY, N. S., 3 Green Walk, Timperley, Cheshire.
 DAWSON, J. O. H., Beauclerc, Riding Mill, Northumberland.
 EARLE, J., 346 Liverpool Road, Widnes, Lancashire.
 ELLIS, G. E., Ivy Cottage, Pedley Lane, Congleton, Cheshire.
 FLETCHER, W. R., 531 Whitworth Road, Rochdale, Lancashire.
 † GILL, H., Gervase Smith & Sons Ltd., 8 Stanton Close, off Church Road, Darley Dale, Derbyshire.
 GOULD, C. W. L., 43 Silverdale Road, Gatley, Cheadle, Ches.
 GREEN, R., 94 Moseley Wood Gardens, Cookridge, Leeds 16.
 GRIFFIN, D. P., 3 Marlborough Court, Churchill Park, Warrington, Lincoln.
 HALL, MRS. M., 6 St. David's Road, Hazel Grove, Stockport, Ches.
 † HAMER, G. M., Sunnymount Nursery, Glossop Road, Chisworth via Broadbottom, Hyde, Ches.
 HAMMOND, E. G., White Thorn, Dumban Lane, West Bollington, Macclesfield, Ches.
 HARDMAN, J. S., 19 Kendal Road, Holcombe Brook, near Bury, Lancs.
 HENRY, S., 50 Harrowden Road, Doncaster, Yorks.
 HILL, M. A., 20 Green Walk, Timperley, Ches.
 HUGHES, Dr. P., Longsight House, Darton, near Barnsley, Yorks.
 JACK, G., Rossmoyne, 33 Manor Road, Bramhall, Ches.
 JAKEWAYS, DR. R. J., 7 Wordsworth Avenue, Penistone, near Sheffield.
 JONES, MRS. M. HOWARD-, 1 Carrs Crescent West, Formby, Liverpool.
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 KELLY, H., Ballaqueeney Lodge, Ballaquale Road, Douglas, I.O.M.
 KERR, J. W., 31 Wentworth Drive, Sale, Ches.
 KERRY, R., 8 The Avenue, Rainford, near St. Helens, Lancs.
 KERSHAW, MRS. B. M., Orleans House, 323 Fleetwood Road, Fleetwood, Lancs.
 LASCELLES, R. G., Birchwood, 358 Park Lane, Macclesfield, Ches.
 LESLIE, W., 403 Durdar Road, Carlisle, Cumberland.
 * LEVER, G., 239 Tottington Road, Harwood, Bolton, Lancs.
 LIVESSEY, D. D., Craigneish, St. Georges Road, Hightown, near Liverpool.
 MACINTYRE, MRS. C. M., The Cottage, Fontainebleau, Cranage, Holmes Chapel, Ches.
 MACKLEY, MRS. M., 21 Linden Way, Boston, Lincs.
 MARTIN, J. E., Elder Tree Lane, Ashley, near Market Drayton, Shropshire.
 MARTIN, W., 8 Sandringham Drive, Poynton, near Stockport, Ches.

- METCALF, DR. J. A. S., 21 Church Lane, Acklam, Middlesbrough, Yorks.
 MIDDLETON, F. D., 5 Willows Court, Ryton-on-Tyne, Co. Durham.
 NADEN, MRS. A. M., 14 Ryles Park Road, Macclesfield, Ches.
 NEWSHAM, MISS V. M., 43 Carfield Avenue, Meersbrook, Sheffield 8.
 NICHOLLS, R., 43 Kimberley Avenue, North Shields, Northumberland.
 PARRY, MRS. R. I., Long Ridge, Delamere, Northwich, Ches.
 PARTINGTON, B., 3 South Drive, Gatley, Ches.
 PATRICK, L. B., Holly Court, Milhouses Lane, Sheffield 11.
 PERKIN, J. M., Roseacres, Barrow Lane, Hale, Ches.
 PREW, H. C., 229 Chester Road, Hartford, Northwich, Ches.
 † THE CLIFFORD PROCTOR NURSERIES LTD., Brookside, Chesterfield, Derbyshire.
 PRYDE, MRS. M., 3 Oldfield Close, Heswall, Wirral, Ches.
 RAVENSLAW HORTICULTURAL CENTRE (W. R. Lovesey, Hort. Organiser), Alnwick, Northumberland.
 ROWLINSON, M., 88 Cherry Lane, Lymm, Ches.
 SENDER, M. B., 12 Hodgson Cresc., Leeds 17.
 SHERWIN, MISS D. E., 6 Clifton Lane, Handsworth, Sheffield 9.
 SMALL, DR. W. A. W., 51 High Street, Normanby, Middlesbrough, Yorks.
 SMITH, G. D., Superintendent, Harlow Car Gardens, Harrogate, Yorks.
 SMITH, REV. S., 15 Wyedale, Whitby, Ellesmere Port, Ches.
 SMITH, W. H., Holt House, Mobberley, Ches.
 SWIFT, H., 105 Dobcroft Road, Sheffield 7.
 TAMMEN, MRS. K., Aiskew Villa, Aiskew, Bedale, Yorks.
 TETLEY, MISS U., Lynshaw, Thornbarrow Road, Windermere, Westmorland.
 * TOOTHILL, A. P., Springfield, 431 Whirlowdale Road, Sheffield 11.
 TUDOR, MRS. J., 3 Benches Lane, Chisworth via Hyde, Ches.
 TURPIN, G., 25 Birkett Drive, Ulverston, Lancs.
 TYSON, J. R., High Cross, Hawkshead, near Ambleside, Westmorland.
 VANN, MISS L., The Stone House, Thursby, near Carlisle, Cumberland.
 WALKER, DR. J. K., Green Rigg, Riding Mill, Northumberland.
 WILLS, A. W., Manor Cottage, 1 Front Street, Whickham, Co. Durham.
 WINFIELD, L. G., 50 Carsick Hill Crescent, Sheffield 10.
 WRIGHT, REV. J., 7 Mayfield Road, Timperley, Altrincham, Ches.
 * WRIGHT, K. E., 37 Batsworth Drive, Sheffield 5.
- Group 4. Wales**
- * ARMSDEN, DR. A., Glencerrig, Llanfaglan, Caernarvon.
 BIRD, D. S., Crud-yr-Awel, Trelyon, Aberdare, Glam.
 CALVERT, G. W., Plas Owain, Harlech, Merioneth.
 CHATTAWAY, J. F., Drws-y-Coed, Llanbedrog, Pwllheli, Caerns.
 CHESTER, H. H., Firdene, Three Crosses, Swansea.
 DANIEL, F., Gwafelin, Vale of Rheidol, Pen-llyn, Aberystwyth.
 DAVIES, E. D., 6 Hughes Street, Penygraig, Rhondda, Glam.
 FARMER, G. G., Bryn Du, Mynytho, Pwllheli, Caerns.
 GARRATT, D. M., Sarnia, Druid Road, Menai Bridge, Anglesey.
 GRIFFITHS, MAJOR R. L., Little Heath, Trearddur Bay, Anglesey.
 HUGHES, T., Trelma, Llanfwog, Ruthin, Denbighshire.
 ISAAC, T. J., Melrose, Prescelly Park, Fishguard Road, Haverfordwest, Pems.
 † KEELEY, R. J., Riverside Nurseries, Glan Conway, near Colwyn Bay.
 KNIGHT, L. A., Eynhallow, Park Corner, Haverfordwest, Pems.
 LLOYD, R. J. H., Ffynnon Deilo, Pendoylan, near Cowbridge, Glam.
 MOSS, Wm., Maes Esgob House, Caerwys Station, Mold, Flintshire.
 PAUL, MRS. J., Plas Nant, Aber, near Llanfairfechan, Caerns.
 PUDDLE, C., Bodnant Gardens, Tal-y-cafn, Colwyn Bay.
 SMITH, A. G. B., Ty Gwyn, Talybont, Bangor.
 WILLIAMS, G., Bryn Eithin, Porthfelin Road, Holyhead, Anglesey.

Group 5. Midlands

- † ANNABEL, A., Springwood, Church Drive, Ravenshead, Linby, Nottingham.
 ASH, F., Folly Nook Lane, Ranskill, Retford, Notts.
 BAILEY, J. H., Alpina, 4 The Crescent, Sweetpool Lane, West Hagley, Worcs.
 BALL, W. R., 97 Lambley Lane, Burton Joyce, Nottingham.
 BARDEL, MRS. M., Parlours Bank, 39 Hergest Road, Kington, Herefordshire.
 BEER, J., 87 Sansome Road, Solihull, Warwicks.
 BRAMMER, MRS. M., Merrivale, Sheepwalk Lane, Fishpool, Mansfield, Notts.
 CASTELLAN, MRS. C., The Spinney, Bower Lane, Etching Hill, Rugeley, Staffs.

- CHALLONER, T. A., New Leys, High Ash Farm, Meriden, near Coventry.
 COOPER, K. V., Abbeywood House, Newstead Abbey Park, Linby, Nottingham.
 COUGHLIN, MRS. R., 17 Alvechurch Highway, Lydiate Ash, Bromsgrove, Worcs.
 † COX, D. C., 125 Central Avenue, Syston, Leics. (Nursery: Goscote Nurseries, Ragdale, Melton Mowbray).
 DAVIES, J. GWYN-, Midland Wallboards Ltd., St. Vincent Street, Birmingham 16.
 EDWARDS, MRS. M., Ashlands, Stoneleigh Road, Gibbet Hill, Coventry.
 ELLIS, MISS F. M., Little Acre, 74 West Malvern Road, Malvern, Worcs.
 EMPSON, S., St. Margarets, Droitwich, Worcs.
 FLETCHER, D. B., 88 Pastures Hill, Littleover, Derby.
 GLEADALL, MRS. E. M., 4 Oonchar Road, Wyld Green, Sutton Coldfield, Warwicks.
 GRAVENALL, P., 29 Court Drive, Shenstone, near Lichfield, Staffs.
 HANSON, F. D., 110 College Road, Moseley, Birmingham 13.
 HARDY, G. A., Girvan, Holywell, Shrewley, Warwicks.
 HASELER, R., 46 Silhill Hall Road, Solihull, Warwicks.
 HAYMAN, H. V., 31 Main Street, Glenfield, Leicester.
 HAY, R. N., 7 High View Avenue, Keyworth, Nottingham.
 HEADLEY, W. H., 43 Craighill Road, Knighton, Leicester.
 HILL, R., 151 Oldbury Road, Smethwick.
 HILTON, SIR DEREK, Eaves, Chapel-en-le-Frith, Derbyshire.
 HORSLEY, N., 12 Perlethorpe Avenue, Mansfield, Notts.
 HURTLEY, D., 54 Postbridge Road, Styvechale, Coventry.
 JONES, H. R. W., 11 Scott Road, Walsall, Staffs.
 JONES, MISS P. M., Fair Acre, Green End, Oswestry, Shropshire.
 KEY, MRS. H., Wycombe Lodge, Durcott Road, Evesham, Worcs.
 LAUGHER, MISS F. H., 4 Parkway, Stone, Staffs.
 * LAW, R., Meadows, Draycote, near Rugby, Warwicks.
 LEAD, W. L., 22 Imperial Avenue, Gedling, Notts.
 LIDGATE, MISS M. B. S., The Nutshell, Richards Castle, Ludlow, Shropshire.
 LOVEGROVE, MRS. K. A., St. Columba's, Weobley, Hereford.
 LUMB, F., 17 Stanhome Square, Wilford Hill, Nottingham.
 NEWTON, A. B., 58 Cole Bank Road, Hall Green, Birmingham 28.
 PRINGLE, WM. H., 56 Littleheath Lane, Lickey End, Bromsgrove, Worcs.
 PRITCHARD, MISS E., 62 Sherifoot Lane, Four Oaks, Warwicks.
 RADLEY, A. D., 68 King Charles Road, Halesowen, Birmingham.
 RICHARDS, MRS. C., Dryhill, Ragdon, Church Stretton, Salop.
 † ROBERTS, MRS. E. S., Glenhurst, 121 Hadley Park Road, Leegomery, Wellington, Shropshire.
 ROUGHAN, J. M., 27 Smith Street, Warwick, Warwickshire.
 SHACKLOCK, MRS. P., Applegarth, Paddock Close, Quorn, Leics.
 SIMONS, J. P., Swinford House, Rugby, Warwicks.
 † SPARKES, J. W., Beechwood Nurseries, Gorcott Hill, Redditch, Worcs.
 STANLEY, P. J., 20 Corbridge Road, Sutton Coldfield, Warwicks.
 STREET, H., Hill House, 38 Wyvern Road, Sutton Coldfield, Warwicks.
 THOMAS, MRS. W. H., 19 Jervis Crescent, Streetly, Sutton Coldfield, Warwicks.
 TRUMAN, MRS. E., 22 Queen's Road, Walsall, Staffs.
 TURNER, A. S., 167 Cole Valley Road, Birmingham 28.
 WHALLEY, T. W., Highfields, Newstead Abbey Park, Linby, Nottingham.
 WILLIAMS, T. VAUGHAN, The Priory, Pillerton Priors, Warwick.
 * YATES, G., Crail House, Newstead Abbey Park, Linby, Nottingham.

Group 6. Eastern and other North of Thames

- AUSTIN, A. J., St. Coronati, Warren Lane, Stanway, Colchester, Essex.
 BAILEY, MRS. M., 32 Cassiobury Drive, Watford, Herts.
 BAKER, J. W., Frensham, Blue Mills Hill, Witham, Essex.
 BARBER, A. T., Ludgrove, Wokingham, Berks.
 BIGG, P. H., 56 Ormond Avenue, Hampton, Middx.
 BIRCH, MRS. M. C., 11 Warren Heath Avenue, Ipswich, Suffolk.
 BISSET, MISS J. M., Kingsmead, Fulmer Road, Gerrards Cross, Bucks.
 BLOOM, A. J. R., Foggy Bottom, Bressingham, Diss, Norfolk.
 BOWEN, A. E., 3 Church Road, Pulloxhill, Bedford, Beds.
 BRISTOW, A., The Grange, Thwaite, Eye, Suffolk.
 BROWNE, MRS. H. H. R., Gordonbush House, Egypt Lane, Farnham Common, Bucks.
 CANDLIN, MRS. E. M., 22 Cleveland, Abingdon, Berks.

- CHEASON, D. M., 4 Primrose Lane, Waterbeach, Cambs.
 CONSTABLE, J. L., Mallard Ducks Hill Road, Northwood, Middx.
 COOPER, MRS. A. I., 24 Westwick Gardens, Cranford, Hounslow, Middx.
 COWIE, A. T., 6 Maiden Erlegh Drive, Earley, Reading, Berks.
 CRANE, MR. & MRS. H. H., Highmead, Cheney Street, Eastcote, Pinner, Middx.
 DODGSON, MRS. F. W., Kaikoura, 127 Heath Park Road, Gidea Park, Essex.
 DORN, A. J., Roughwood, Red Copse Lane, Boars Hill, Oxford.
 DUNCAN, A. MCK., Windy Ridge, 32 Parsons Heath, Colchester, Essex.
 FERGUSON, H. McL., Pine Cottage, Mackerel Hill, Royston, Herts.
 FINCH, J. E., The Barn, Wargrave Road, Twyford, Berks.
 FLICK, L. P., 109 Cranborne Way, Hayes, Middx.
 FREEMAN, D. A., The Old House, Princes Risborough, Bucks.
 FRY, MRS. D. I., 11 Digswell Park Road, Welwyn Garden City, Herts.
 GARRARD, MISS M., The Hollies, Gimingham, Norwich 34Y, Norfolk.
 GARVEY, SIR RONALD, K.C.M.G., K.C.V.O., The Priory, Brandeston, Woodbridge, Suffolk.
 GILMOUR, J., The University Botanic Gardens, Cambridge.
 GREEN, MRS. B., 143 Auckland Road, Ilford, Essex.
 GRIFFITHS, V. L., Hillside, Noke, near Oxford.
 HAIGH, MRS. G., Tollesburys, Stebbing, Dunmow, Essex.
 HARPER, MRS. P., 29 The Uplands, Gerrards Cross, Bucks.
 HAWES, MISS M., 14 Rivermead, Yarmouth Road, Stalham, Norwich, Norfolk.
 HEADLEY, MRS. J., Heather Cottage, Robins Hill, Aldringham, near Leiston, Suffolk.
 HENLEY, MRS. F. H., Gustard Wood House, Wheathampstead, Herts.
 HIGNEOTHAM, MISS H., Leugars, Nightingales Lane, Chalfont St. Giles, Bucks.
 HOLLINGS, MISS S. M., Oak Apples, Oaklands Lane, Crowthorne, Berks.
 HOWES, MRS. V., Green How, Folgate Lane, Old Costessey, Norwich, Norfolk.
 HUXTABLE, E. J., Dunstead's, Ingatestone, Essex.
 KIRBY, MISS P. J., Holmewood, 183 Finchampstead Road, Wokingham, Berks.
 LAWRENCE, C. R., Southernwood, Hargham Road, Attleborough, Norfolk.
 LOCK, A. J., Gomms Wood, Knotty Green, Beaconsfield, Bucks.
 LONDON, B. G., 2 Adelaide Road, High Wycombe, Bucks.
 LOWEN, MRS. J. E., 40 Priory Road, Bicknacre, Chelmsford, Essex.
 MATHEWS, MISS D. M., 51 Downs Avenue, Pinner, Middx.
 MAY, R. R., Quintons Cottage, East Bergholt, near Colchester, Essex.
 MCLEAN, A. G., Calver Lodge, Frithwood Avenue, Northwood, Middx.
 MELDRUM, A., Culford House, Mundford, Thetford, Norfolk.
 MILNER, MRS. C. A., 8 Westmoreland Avenue, Hornchurch, Essex.
 MITCHELL, G., Heathlands, Doggetts Wood Close, Chalfont St. Giles, Bucks.
 MITCHELL, R., Murray Lodge, Burtons Lane, Chalfont St. Giles.
 MOORE, S., Nester, Kingfisher Close, Hutton Mount, Brentwood, Essex.
 MUNN, L. H. C., Bluebell Corner, Nightingales Lane, Chalfont St. Giles.
 NEWTON, C., Manor Hotel, Blakeney, Holt, Norfolk.
 PARKES, MRS. D., Longmead, London Road, Braintree, Essex.
 PATERSON, A., Little Sparrows, Hadhamford, Little Hadham, Herts.
 PEARSON, MRS. H. E. S., Pepper Alley, High Beech, Loughton, Essex.
 PEDRICK, G. F., 9 Cedar Drive, Hatch End, Middx.
 PROSIO, DR. F., Metcalfe Farm, Hedgerley, near Slough, Bucks.
 † PROUDLEY, MR. & MRS. B., Aldenham Heather Nursery, Round Bush, Aldenham, near Watford, Herts.
 REEVE, MRS. L., 306 Carterhatch Lane, Forty Hill, Enfield, Middx.
 ROBERTS, G., Pond Cottage, Chapmore End, Ware, Herts.
 ROSS-LEWIN, MAJOR F. H. W., The White House, St. Olaves, Great Yarmouth, Norfolk.
 SMALL, J. R., Little Acre, Hanney Road, Southmoor, Kingston Bagpuize, near Abingdon.
 STEVENS, J. R., 18 Priory Avenue, Harlow, Essex.
 STOW, A. J., Josarno, 15 Highlands, Flackwell Heath, Bucks.
 TOFTS, E. J., Hailey House, London Road, Attleborough, Norfolk.
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Group 7. London & S.E.

- ABEL, R. C., 250 Maidstone Road, Rainham, Kent.
 AISHER, R., Midwest, Seal, Sevenoaks, Kent.

- ANDERSON, D. E. L., Little Court, Carron Lane, Midhurst, Sussex.
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 BESSANT, P., Felbrigg, Glenesk Road, Eltham, S.E.9.
 † BICKNELL, D. E., Pinks Hill Nurseries, Pinks Hill, Wood Street, Guildford, Sy.
 BOLT, H. W., Kyrenia Cottage, 36 Sheephouse, Farnham, Surrey.
 * BOWERMAN, MR. & MRS. A. H., Champs Hill, Coldwaltham, Pulborough, Sussex.
 BOXALL, MRS. M. L., Gilridge, Sandy Lane, Kingswood, Surrey.
 BREW, MISS B. G., Scribes, Tyes Cross, East Grinstead, Sussex.
 BROWN, MRS. C. R., Penn Cottage, 1 Downs Road, Seaford, Sussex.
 BUCKLEY, R. M., Woodlands, Greenhill Road, Otford, Kent.
 BURKE, DR. S. A., Orchard Cottage, Manor House Lane, Effingham, Leatherhead, Surrey.
 BURRELL, MRS. G., Cobbles, Oldlands Avenue, Balcombe, Sussex.
 CAMERON, R., Great Comp, Borough Green, Sevenoaks, Kent.
 * CHARRINGTON, SIR JOHN & LADY, High Quarry, Crockham Hill, Edenbridge, Kent.
 CHARRINGTON, MRS. N. D., Dye House, Thursley, Godalming, Surrey.
 CHURCHILL, P. J., 24 Huntingdon Gardens, Worcester Park, Surrey.
 CLARK, E. L., 43 The Avenue, Worcester Park, Surrey.
 CLAYTON, I., Dunedin, 70 Keymer Road, Hassocks, Sussex.
 CLAYTON, O. J., 8 Chittenden Cottages, Wisley, Ripley, Woking, Surrey.
 CLIFFORD, LT.-COL. J. A., Bindons, 8 The Avenue, Lewes, Sussex.
 COPAS, B. A., 13 Pinewood Close, Shirley, Croydon, Surrey.
 * COSTAIN, A. P., M.P., Inwarren, Woodland Way, Kingswood, Surrey.
 DANIELLS, MISS R. W., Wacousta, The Bishops Avenue, London, N.2.
 DEAVES, C. W., The Warren, Compton Way, Moor Park, Farnham, Surrey.
 DELL, M. R., 24 Bodenham Road, Folkestone, Kent.
 DELVES, H. C., Enmore Cottage, Vicarage Road, East Sheen, S.W.14.
 DICKENSON, C. G., 8 Windyridge Close, Wimbledon, S.W.19.
 DOCKSEY, K., 1 Tower Grove, Oatlands Drive, Weybridge, Surrey.
 DOE, B., Head Gardener, Borde Hill Gardens, Haywards Heath, Sussex.
 † DOLLEY, F. H. SANDERSON, Dolleys Hill Nurseries, Normandy, Guildford, Surrey.
 DOWLING, R., 41 Northwood Avenue, Purley, Sussex.
 DUGUID, MRS. J., 6 Holbrook Park, Horsham, Sussex.
 EDMONDS, C. F., Phoenix Lodge, Collendene Lane, Norwood Hill, Horley, Surrey.
 ELLIS, H. C., Wedlake Letts & B'rd, 6 Stone Buildings, Lincolns Inn, W.C.2.
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 FORD, PROF. EMERITUS P., Lane End, Sandgate Lane, Storrington, Pulborough, Sussex.
 FORTY, MRS. J., Wyke Cottage, Clandon Road, West Clandon, near Guildford, Surrey.
 FREWEN, LADY, Clench Green, Northiam, Sussex.
 FRYER, MISS B. FIELD-, Collington Lodge, Collington Grove, Bexhill-on-Sea, Sussex.
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 GANT, MRS. A., 243 Felsham Road, Putney, S.W.15.
 GILBERT, MRS. M. R., Coppins, Offham, Lewes, Sussex.
 GORDON-LENNOX, REAR-ADMIRAL A., Fishers Hill, Midhurst, Sussex.
 GRANT, MRS., J. F., Cherries, Dormans Park, East Grinstead, Sussex.
 * GRAY, MRS. RONALD, Southcote, Hindhead, Surrey.
 * HALE, H. ASHGARTH, Hill Road, Haslemere, Surrey.
 HALL, MRS. P., Orchard Cottage, Cophorne Road, Felbridge, East Grinstead, Sussex.
 † HARDWICK, R. E., The Nurseries, Newick, Sussex.
 HARDY, GEN. SIR CAMPBELL, C.B.E., Bunch Lane House, Haslemere, Surrey.
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 HOLMAN, H. J., The Lodge, Sandhills, Betchingley, Surrey.
 HUNTER, R. J., Baringa, Beaconsfield Road, Claygate, Surrey.
 JENKINS, G., Windrush, Hickmans Close, Lindfield, Sussex.
 KAY, W. A., Doushka, Kingsford Street, Mersham, Ashford, Kent.
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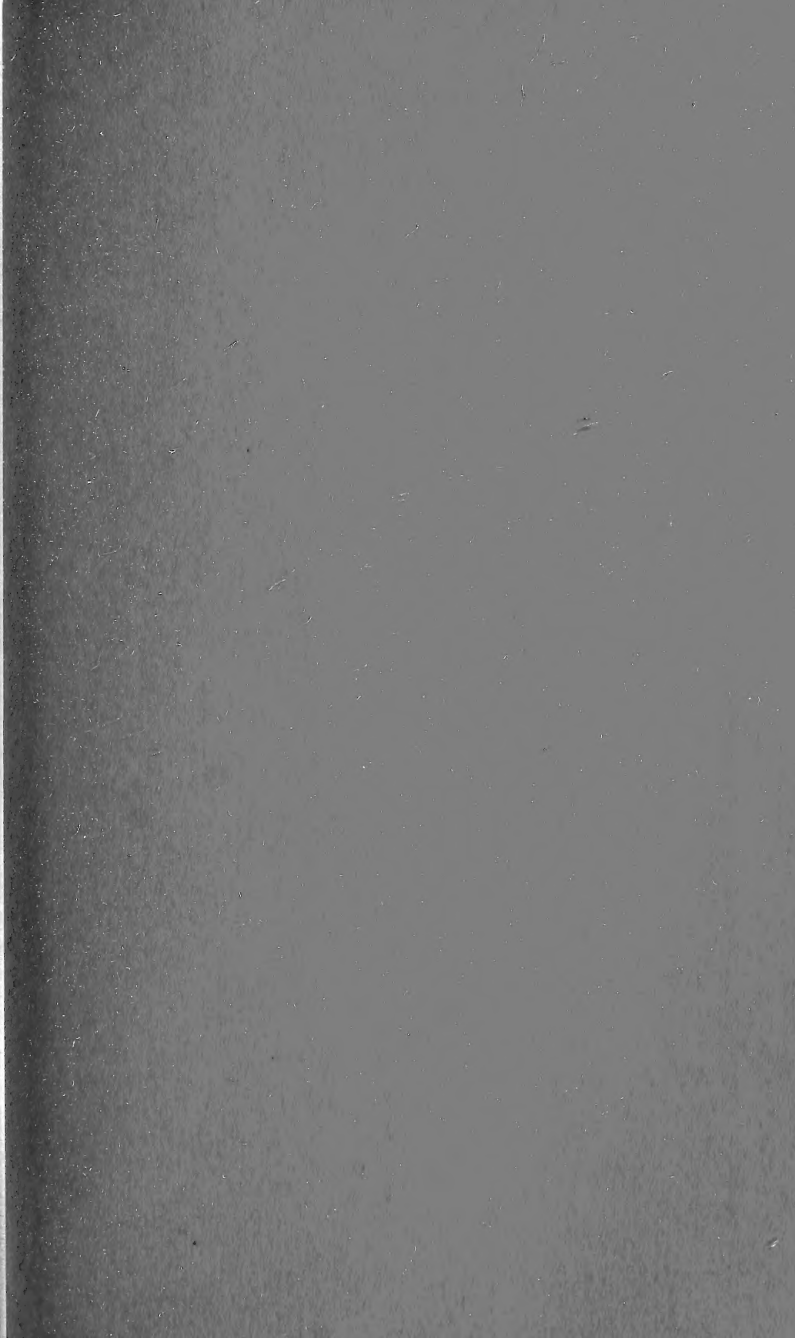
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